THE AMERICAN School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION

November, 1931

THE BRUCE PUBLISHING COMPANY

NEW YORK MILWAUKEE, WISCONSIN CHICAGO

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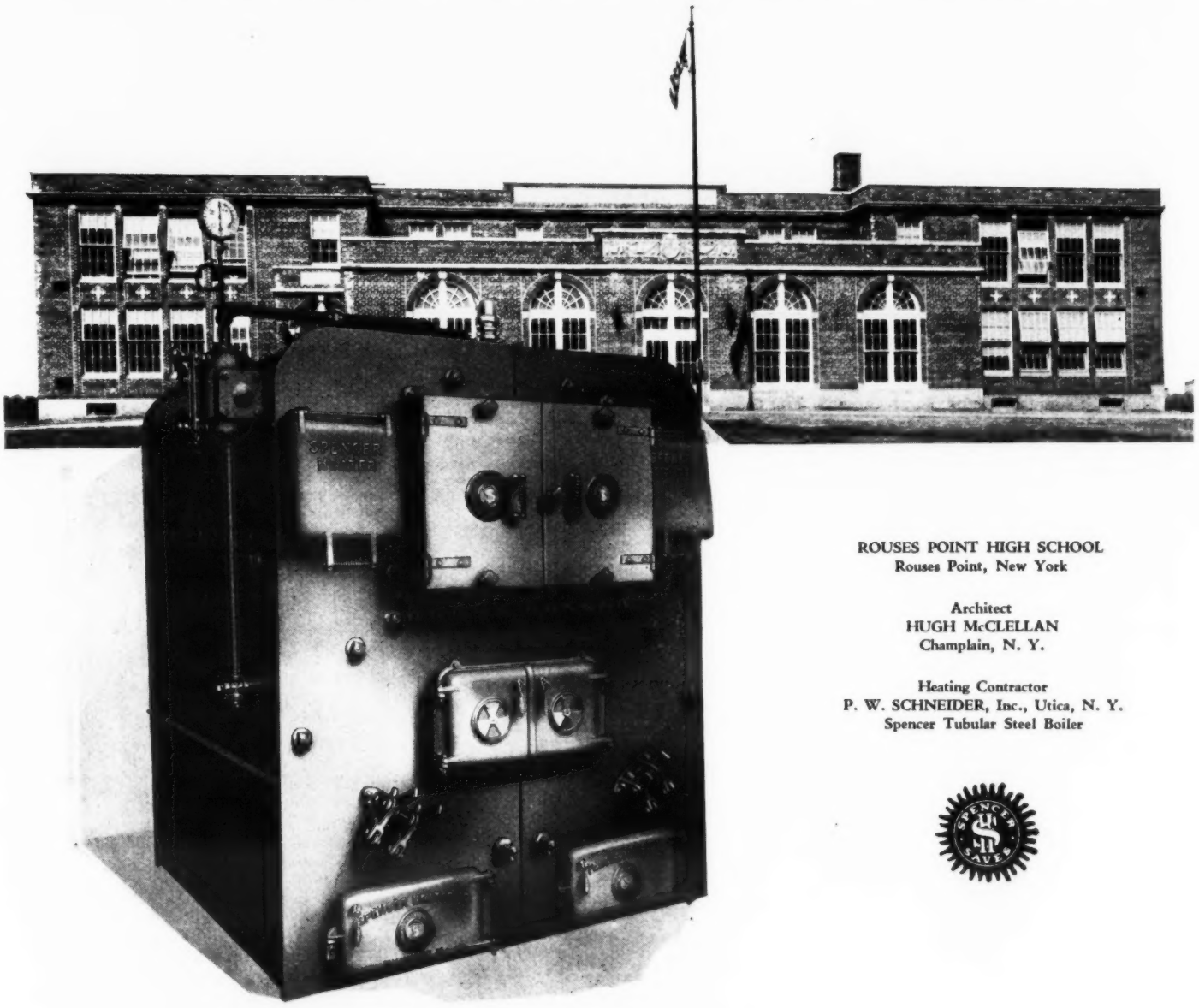

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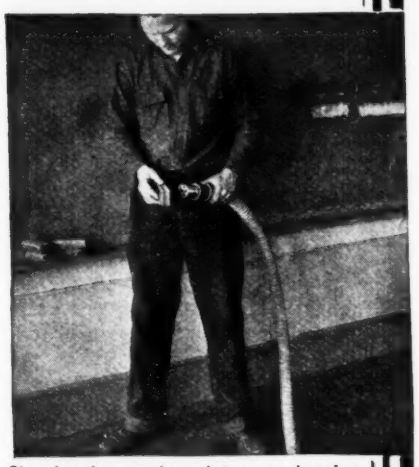
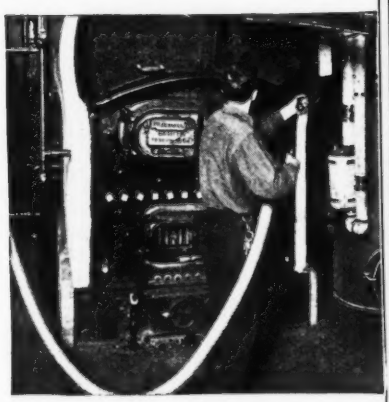


Showing the use of special eraser cleaning tool.



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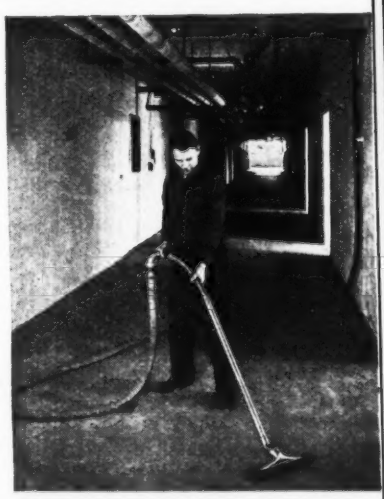

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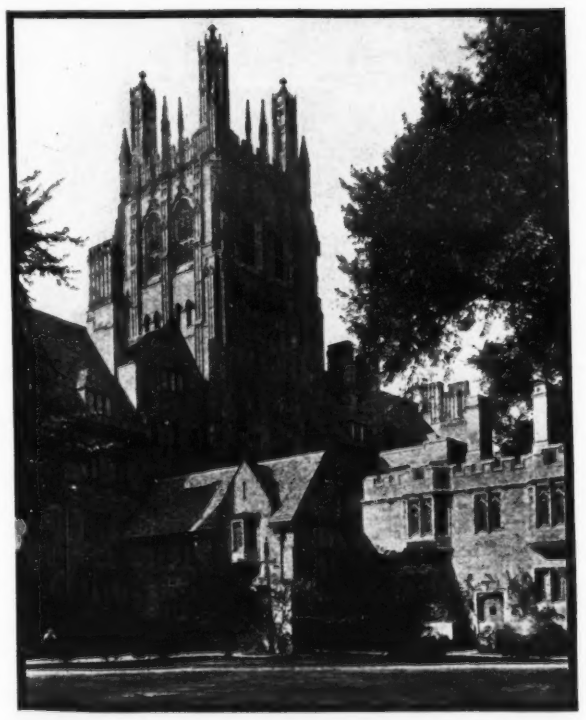

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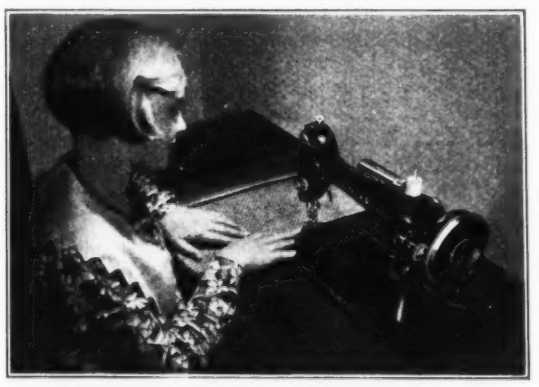

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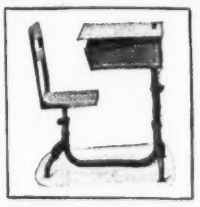

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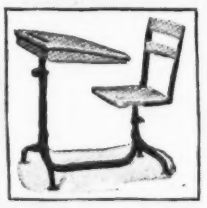

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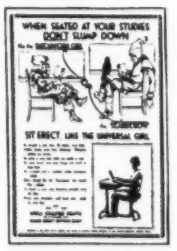

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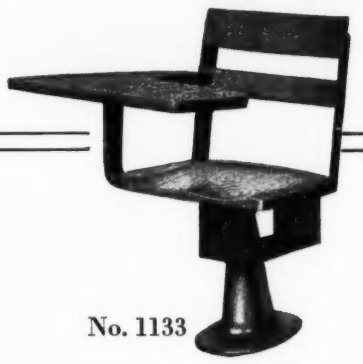

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VOL. 83
No. 5

NOVEMBER,
1931

THE AMERICAN School Board Journal

A Periodical of School Administration

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CHICAGO, ILL.

TABLE OF CONTENTS

The American School Status

THOSE who have been disturbed over the economic situation, which afflicts the whole world at the present time, will find something comforting and assuring in contemplating the school situation of the United States.

The spirit of enterprise, energy, and industry which has characterized the leaders in popular education, and has led to the rearing of a magnificent school system, has never been more intense, more sincere, and more effective than it is at the present moment.

The American schoolmaster was never more earnest and thorough in the performance of his task than he is at the present time. There has never been a finer momentum, wiser direction, and circumspect control of the public-school service.

True, the economic conditions have here and there affected school support. Budgets had to be more closely scrutinized, but on the whole, the efficiency of schools has been maintained upon their customary high level. The things that the schools have really needed, such as textbooks, supplies, and equipment, added classrooms—all have been supplied in the usual satisfactory manner.

The schools of the United States set forth in an eloquent manner the thought that human progress must go forward with confidence, with energy, and with enthusiasm. Human adversities are temporary only, and just as daylight follows the night so prosperity will follow depression.

The stability and perpetuity of the nation, its hopes, its ambitions, and its aspirations are well reflected in the calm, steady, and efficient administration which in a trying hour characterizes the American schools.

THE EDITOR.

Subscriptions—In the United States and possessions, $3.00 per year. Canadian postage and tariff, $1.00. In foreign countries, $4.00. Single copies, not more than three months old, 35 cents; more than three months old, 50 cents. Sample copies, 35 cents.

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Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited, and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

The contents of this issue are listed in the *Education Index*. Member, Audit Bureau of Circulation and Associated Business Papers.

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THE AMERICAN
School Board Journal

Volume 83, No. 5 NOVEMBER, 1931 Subscription, $3.00 the Year

EQUALIZING THE BURDEN OF SCHOOL SUPPORT!

Teachers' Salaries and the Financial Depression

Willard S. Elsbree, Teachers College, New York

During periods of economic depression, the problem of teachers' salaries assumes a prominent place in the deliberations of school boards. Indeed it is little wonder when large industrial concerns are effecting 10 and 15 per cent wage cuts for their employees, and when emergency economy measures are being accepted by both business and governmental organizations that school-board members in their capacity as guardians of the public purse should focus their attention upon the largest item of the public-school budget — teachers' salaries.

Up to the present time, despite considerable agitation for salary reductions, few drastic cuts have been made. A few boards became apprehensive early during the depression and actually reduced salaries from 5 to 15 per cent. Other boards have pursued the policy of watchful waiting, withholding increases for the present year, but have made no commitments for the future. The majority of boards have maintained their schedules providing annual increases as usual, and a small number of the most courageous ones have established new schedules at rates decidedly higher than last year. Generally speaking, the rank and file of teachers are probably better off today than ever before, because the purchasing power of their monthly salary check has been markedly increased by the steady decline in the price of commodities.

Critical Thinking Needed

However, whatever economic advantages the public-school teacher may have attained by virtue of the increased purchasing power of the 1931 dollar over the dollar of predepression days, these temporary advantages are now seriously imperiled by insistent demands for economy. The question of whether or not to lower teachers' salaries is one which cannot be evaded, neither can the matter be treated lightly nor dismissed arbitrarily. The situation calls for critical thinking and a perspective which sees far beyond the usual duration of economic depressions.

Unfortunately, business slumps frequently lead to the adoption of shortsighted policies. People tend to become panicky and in their anxiety over the immediate emergency they lose sight of the future. The reflective citizen, conscious of the disastrous consequences which have accompanied low salary levels for teachers in the past, has no reason for modifying his opinion now. To him the movement toward adequate compensation for teachers has been and is based not so much on a sentiment either of pity for the hardships endured by teachers or of desire for fair play for an unappreciated group of wage earners, as upon a firm belief that adequate salaries for teachers promote the well-being of all.

The fate of society rests in the teachers' hands to a far greater extent than the layman realizes. Upon their skill, their knowledge, and their personal influence depend not only the immediate welfare of the pupils under them, but the shaping of tomorrow's citizenry. Nor is the quality of teaching of primary concern to parents and reformers only. Even from a purely selfish standpoint, every individual is personally affected by the education afforded children. The schools determine in no small measure the character of the community in which the individual lives, and they are to a considerable extent responsible for the fact that the people with whom he mingles daily are decent, healthy, clean, literate, and alert. Moreover, universal suffrage will soon give the children of today power at the polls, where one man's vote counts just as heavily as another's. Each man's welfare is thus dependent to a large extent upon the schooling given his neighbor's children. Teachers' salaries, then — insofar as they affect the actual instruction of the younger generation — are not merely an academic problem, but a matter of deep significance to every citizen.

Salaries Determine Efficiency

The salaries paid public-school teachers determine not only the quality of the human material that enters the profession, but also the amount and character of their general and professional preparation and their subsequent improvement in service. Even after a good grade of raw material has been obtained, money is necessary to develop it to its highest potentialities. Professional preparation requires a large initial outlay which teachers are not likely to make unless a reasonable financial return is assured them. Communities that desire teachers with a cultural background of literature, art, music, and the drama, in addition to technical training, must pay them liberally enough to make this background possible. Books, magazines, concerts, lectures, and theater and opera tickets cannot be had for the asking. Travel enriches the teacher's experience and gives her a cosmopolitan point of view, but travel is expensive. The teacher whose private life is strangled by poverty and whose outlook is limited by the four walls of her boarding house can hardly escape having a distorted perspective. Of all the groups in the community, teachers have a first claim to a broad, cultural background — not by virtue of their own personal worthiness, but because the development of cultural tastes and ideals in the younger generation rests mainly in their hands.

Leisure, itself a by-product of money, is absolutely essential to mental and physical vigor. The teacher must have time for reading and study, time for recreation and diversion, time for cultural interests, and time for travel. If the teacher's salary is so low that she must either devote her out-of-school hours to making her own clothes, doing her own laundry, cooking, and cleaning, or else take on odd jobs to help defray expenses, she will have little time and less energy for those outside interests which would contribute to her effectiveness in the classroom. Teachers whose nerves are worn to a fine edge by mental and physical exhaustion, by too much routine and too little diversion, cannot have the patience, the tolerance, and the infinite sympathy which are essential to successful work with children. Still less can they emanate enthusiasm and impart to their classroom teaching the sparkle and buoyancy possible only to healthy, happy, sane individuals.

Salaries and Emotional Tone

Finally, money has an important psychological effect. Attractive surroundings act as a tonic. Good clothes have a subtle but none the less real influence upon their wearer's state of mind. A sense of financial security gives serenity and poise. If teachers are to be the epitome of optimism, they must have enough of the physical comforts and the niceties of life to maintain their own self-respect and to command the respect of others.

Thus the quality of instruction and the whole emotional tone of the teacher depends upon her salary. Children are so susceptible to the personal influence of the teacher that it is a matter of the utmost importance that teachers be imbued with hope, not drugged with despondency. The public should congratulate itself that teachers are human beings, that they have a normal desire for a comfortable standard of living, and that they are not insensible to the pleasure and the profit to be gained from many of the finer things of life which only money can buy.

Despite the social significance of teaching, however, the public has been seriously remiss in not providing adequate compensation for the purveyors of knowledge. Teaching still remains one of the lowest paid occupations. A study by Douglas of "Real Wages in the United States, 1890–1926" furnishes an interesting comparison between teachers' salaries and the wages paid to certain industrial and professional groups. The following table summarizes the data assembled by Douglas on actual earnings of several groups of workers for the year 1926:

Average Annual Earnings of Teachers and Certain Other Groups of Workers, 1926

Industrial or Professional Group	*Average Annual Earnings*
Farm Laborers	$ 593
Teachers	1,277
Wage Earners—mfg. industries	1,309
Coal Miners	1,332
Public Utility Workers[1]	1,536
Government Employees (Executive Dept.)	1,809
Ministers	1,826
Postal Employees[2]	2,128
Clerical Workers—mfg. and steam railroad	2,310

[1]Includes steam railroads, street railways, telephone and telegraph, and gas and electricity workers.
[2]Mail clerks and letter carriers.

From this table it will be seen that farm labor is the only occupation in the group which provides less attractive wages than teaching. Coal miners without any educational qualifications whatsoever, letter carriers, postal clerks, telephone workers, ministers, clerical workers, government employees in Washington, D. C., and workers engaged in manufacturing plants all received higher salaries than teachers in 1926. While certain wage modifications have been made during the past five years which may affect somewhat the averages found in the table, the situation has certainly not altered materially. The average annual salary of public-school teachers today, exclusive of the salaries of principals and supervisors, is not over $1,300. The salaries of government employees in Washington were somewhat higher in 1928 than in 1926 which would indicate that in all probability the relative position of this group has not changed markedly. Likewise there has been no noticeable decline in the wages of postal employees. In general, the figures presented in the table may be accepted as fairly representative of present-day wage conditions in America.

What is a Fair Wage?

No one at the present time can state positively what is a "fair wage" for any one of these groups of workers. In the last analysis it is a matter of judgment and involves an estimate of the relative ability of the workers under consideration and the value of their respective contributions to the welfare of society. It seems reasonable, however, to propose that the salaries of teachers intrusted with the responsibility of educating the nation's children should scarcely be less than the wages of letter carriers or clerical workers. Surely the ability required to teach children effectively the fundamental rules of life is incomparably scarcer than the ability to deliver mail or to operate a typewriter. As to the relative importance of the teacher's contribution to the advancement of human progress, no further argument seems necessary. Suffice it to say that no other single individual in society has greater opportunity to influence the lives of children for good or bad than the American teacher.

Another measure of the present financial status of teaching as a vocation is the maximum salaries paid to those in the profession who possess the highest qualifications and who have attained the greatest success. The best prepared teacher in the United States, though he possess the eloquence of Demosthenes, the character of St. Francis, the humor of Mark Twain, the wisdom of Solomon, and the patience of Job can

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Making Educational Research Function

Ward G. Reeder, Ohio State University

For the support of public elementary, secondary, and higher education the people of the United States have spent progressively larger amounts each year; they are now spending more than $3,000,000,000 annually. From earliest colonial days in the United States, education has been by far the largest public enterprise. More money is spent for education, more people are employed in it, and more people are affected directly or indirectly by it than is true of any other public business. Almost one fourth of the American people now spend most of their waking hours in schoolwork, and there are few homes which do not have at least one representative in school, either as a pupil or as an employee. More than one fifth of the nation's population is now enrolled in school; this huge army of pupils is under the tutelage, the supervision, and the administration of more than one million employees.

To discuss here the importance of education would be trite. It will suffice to remind ourselves that from the beginning of the nation education has been everywhere regarded as the bulwark of a democratic government, as the surest guarantee of a progressing society. Since the time of its establishment in early colonial days the school has been the most cherished institution of the American people and the faith in it, always strong, continues to grow as the years go by.

Technical and Complex Nature of Education

In addition to being the largest and the most important public business, the work of teaching, supervising, and administering the schools is, contrary to common belief, one of the most complex and technical businesses. Because of the size and the complexity of the business it is probable that no public expenditure presents so many and so large opportunities for waste. No informed and fair-minded person will deny that millions of dollars are wasted annually in the management of the schools — not maliciously wasted, but wasted either because of ignorance of the best practices or because of oversight and carelessness in adopting and following those best practices when they are known.

Lest some myopic and unfair critic of the schools attempt to use my testimony on waste as a weapon with which to injure the work and the prestige of the schools, I hasten to affirm that, although waste wherever found is always regrettable, it is not a characteristic peculiar to the schools and unfound in other endeavors. Waste exists in all business, whether public or private, large or small, and I doubt whether many of us conduct our private affairs with less proportional waste than the schools are conducted. Only yesterday I was informed by a heating and ventilating engineer that I am wasting at least $50 annually through inefficient methods used in firing the furnace of my home; and a few weeks ago I was charged $40 for repairs on my automobile, whereas the bill would not have been more than $10 if I had ordered the repairs when I first had the warning of need — but I procrastinated and had to pay dearly. These are only two illustrations which show my carelessness and inefficiency in conducting my private affairs, and which, by the way, help to explain why I am still a poor man. Probably the testimony of many of my readers would parallel my own.

Although the financial waste in the schools is colossal, it is probably a mere bagatelle compared with the pedagogical waste. I mean by the pedagogical waste, the waste to the pupil. That waste results from such conditions as our not knowing and using the most efficient methods of teaching, the best curriculum, or the best means of classifying and promoting the pupil. If the pedagogical waste could be measured in dollars and cents, the amount of it would probably stagger the imagination. Although that waste cannot be measured in dollars and cents, it is nevertheless real and is sure to be reflected in the ideals, the attitudes, the habits, and the accomplishments of the boys and girls who will be the citizens of tomorrow. When there is waste in the school, whether the waste is financial or pedagogical, the pupil is being cheated of part of his educational patrimony and that is the unpardonable sin in school management.

Function of Educational Research

We are a long way from knowing the best aims of education and the most effective means of realizing those aims; our ignorance on these matters far exceeds our knowledge. We are far from knowing the most efficient manner in which to spend our huge educational funds, and we are as far from knowing the way in which the individual pupil learns most effectively and the best teaching procedures to use with the individual pupil. Until two or three decades ago educational procedures were dictated largely by tradition, opinion, and rule-of-thumb methods rather than by the facts and the laws of science; indeed, many persons would affirm that this condition still exists. With such procedures there could not, or cannot, help being a large waste of public funds — and what is still more unfortunate, a waste of the pupil's time, effort, and opportunity. Here is where educational research comes in to help us. It is the function of educational research to assist us in preventing the financial and the pedagogical waste just mentioned. Research assists us by providing us with correct and helpful information, and such information is necessary because our judgment and our procedures can never be better than the information upon which they are based.

The Scientific Method

Undoubtedly one of the outstanding movements in education today — indeed, probably the chief difference between present-day education and education of yesteryears — is the large dependence on the scientific method, that is, the method of research, for the solution of educational problems or for the securing of helpful information on those problems. Contrary to the belief of many persons, the characteristics of the scientific method are not mysterious phenomena which only geniuses are competent to comprehend. The scientific method is simply a technique for finding the truth and for making use of the truth. It requires, on the part of the persons who use it, the acumen to discern problems and the ability to solve those problems. A scientist, therefore, is a person who sees and solves problems; stated otherwise, he is a person who searches for the truth, and who has a degree of success in finding it and in making it known to his fellow men.

If this simple and common-sense definition of the scientific method is accepted, it will be agreed that the scientific method in education is not, as has been widely claimed, a recent invention or innovation. It dates back further than the year 1904, 1908, or some other recent year. My slight knowledge of the history of education will not permit me to believe that the millions of teachers who have preceded us, and have passed to their great reward, did their work entirely, if even largely, by rule-of-thumb and mechanical methods. I prefer to think of our predecessors as possessing, at least to a certain degree, the spirit of inquiry, and as being interested in progress; they were not robots or automatons. I choose to think of them as being intent upon passing down to the succeeding generation a better school and better education procedures than their predecessors handed down to them. In brief, I prefer to believe that our predecessors in the teaching profession did employ the scientific method at least to a certain extent. How could the school have been constantly improved, as the history of education shows that it has been improved, without the use of the scientific method? Progress is seldom a happen-so in any field of endeavor. Science has always been the handmaid of progress in education as well as in all other fields.

Recent Use of Scientific Method

It may be safely stated, however, that during the past two or three decades we have developed and used the scientific method more than at any other period in educational history. The scientific method in education received its largest impetus from the derivation of the first standardized tests and scales about two decades ago by such persons as Thorndike and Ayres. The derivations of standardized tests and scales marked the beginning of the so-called scientific measuring movement without which the science of education could not have made so large an amount of progress. In addition to the development of standardized tests and scales, dozens of other research techniques and instruments have been developed and used in making thousands of researches of incalculable benefit to education and to the work of the school. Perhaps it is not extravagant to say that through research we have learned more about education during the last two decades than during all of the previous history of education. Yet it must be admitted that the science of education is still in its infancy; in fact, it has scarcely outgrown its swaddling clothes. We are still woefully ignorant about the aims, the means, and the processes of education, but it augurs well for education that we are more aware of our ignorance than ever before. Intelligent or known ignorance is never as bad as ignorant or unknown ignorance.

Some Representative Educational Researches

Let me mention a few significant facts which educational research has ascertained and of which use is being made by thousands of teachers and other school employees.

1. Research has shown the large amount of pupil failure and has collected much information on the causes of same and the means of preventing and reducing it. This information is being used to the benefit of millions of pupils, and will continue to be used.

2. Research has recently informed us that it is better to promote the typical pupil to the next grade on trial than to fail him without giving him another chance. We have learned through research that approximately three fourths of the pupils who are promoted on trial make good, and are in consequence saved the embarrassment and the discouragement of having to repeat a grade.

3. Many studies have shown the large amount of nonattendance and the causes of same, and have suggested ways by which much of it may be eliminated.

4. It has been found that pupils of the same chronological age vary widely in general intelligence, in special abilities, in interests, in aptitudes, and in other regards. This information is being used by thousands of school employees in attempting to meet the needs of the individual pupil.

5. Numerous studies of the curriculum have been made with the aim of ascertaining the subject matter which is most valuable for pupils to master. Such studies have brought to light the large amount of "deadwood" in the curriculum of the typical school and have suggested the elimination of such material.

How Children Learn

6. Hundreds of psychological investigations have given us a large amount of useful information concerning how children learn. These studies, though, have served their chief purpose in making us aware of how little we really know about the working of that most baffling thing in the world, namely, the mind, and in suggesting to us the need for painstaking and extensive research on this complexity; compared with what we might know and should know, we still know very little about the learning processes of our pupils.

7. Numerous experiments on different teaching procedures have given us much information which we are now using in improving our teaching procedures. For example, we now know that there are better or best ways of teaching spelling, arithmetic, reading, and the other subjects.

8. Several experiments have found that small classes are only slightly more efficient than large classes — this, despite the fact that small classes are much more expensive than large classes. Some administrators are using the results of these experiments as an argument for increasing the size of classes; other administrators, on the other hand, say that these experiments show only what is, not what ought to be.

To list all the truths, discoveries, or information which educational research has given us would require several volumes. The facts which I have just mentioned are typical of hundreds of facts which are now available to every person and which are known, and are being made use of, by thousands of teachers, supervisors, administrators, and other school employees. Unquestionably these researches have been responsible for the prevention or the elimination of millions of dollars of waste annually; unquestionably, too, they have improved teaching techniques greatly with the result that pupils are more and more receiving full benefit from the school.

Value of Educational Research

To secure such information as I have just mentioned costs money and someone must furnish that money. Research cannot be financed out of the air nor on the good wishes of its friends. Either the whole public, or private individuals, must pay out the coin of the realm for it. It is a matter for congratulations during recent years that hundreds of thousands of dollars from public and private funds have been spent for educational research. Part of this money has been expended for the support of departments and bureaus of educational research in colleges, in universities, and in local and state school systems; other portions of the money have subsidized hundreds of school surveys and thousands of other investigations. The tendency everywhere is to increase the expenditures for research. This evinces a greater public interest in research and a growing belief in its value.

No claim is made here that all of the so-called educational research is *real* research, nor that all of the real research functions and affects practice. Indeed, it will be readily admitted that much of the so-called research is not only *not* research, but instead is veritable bunk and quackery; worse still, much of it is really vicious in its conclusions and inferences. There is no field of learning which does not have its quota of quacks and incompetents, and there is no denying the fact that education has its share of these undesirables.

RUSSELL WILLSON
President, Board of School Commissioners,
Indianapolis, Indiana

The school situation of Indianapolis had reached a critical period when the citizenship, after long and acrimonious public discussion, retired an old board of education and elected a new one. The school election (1929) was a battle royal and brought into the board-of-education membership the highest type of citizenship. "Character and efficiency" was the slogan, which determined the choice. The new commissioners had sailed into office with an unprecedented majority (nearly six to one), upon a platform which promised that the commissioners would not be influenced by any consideration other than merit, that the business of the school city would be conducted efficiently, that waste and extravagance must go, that there should be no favoritism, and that the schools would be kept free from nepotism.

A trying period confronted them. The superintendent of schools, the business director, and superintendent of buildings and grounds had resigned, a building program was needed, a financial policy had to be formulated, and a general reorganization of the system was an imminent necessity. The first and most important task, namely, that of securing an educational leader, was well done. Paul C. Stetson, an educator of national reputation, was chosen as superintendent.

The official representative of the group must have courage, vision, insight, and high ideals. Mr. Willson qualified. The pledges of the commissioners have been kept; the schools are conducted solely for the interests of the school children; the school city is operating on a well-balanced budget; five new buildings have been erected; and nepotism is a thing of the past. Of course Mr. Willson hasn't done all these things himself—the other commissioners share with him in these accomplishments—but he has led the way.

Mr. Willson was educated at Indiana University, is a busy and successful attorney, an ardent golfer, has a lively sense of humor, and still takes a cheerful view of life in spite of the fact that he is the titular head of 2,000 teachers, 330 janitors, 150 clerks, and one superintendent! He is a man of parts. You ought to know him.

Failures Possible

But it is impossible to secure the wheat without being bothered with the chaff. Those who sponsor and pay for research cannot expect that every investigator will attack worthwhile problems nor that the solution of all problems attacked will be ascertained. Although all possible precautions should be taken to reduce the "gamble" in research, we must realize that all of the "gamble" cannot be eliminated. Even the immortal Edison testifies that in many of his epoch-making researches he was compelled to use the trial-and-error method and that an innumerable number of his researches have proved worthless. In every one hundred researches there is, always has been, and will probably continue to be, a large percentage of worthless ones.

Indeed, it is conceivable that ninety-nine researches in every one hundred are worthless and show a total loss. But, it is also conceivable that the remaining valuable research would pay not only its own way, but the way of the ninety-nine worthless. One great discovery of an Edison, a Babcock, a Mayo, a Michaelson, a Thorndike, a Binet, a Bell, a Curie, a Koch, a Marconi, or a Pasteur will pay large dividends on all expenditures for research during several years. The accomplishments of one genius are worth more to society than the efforts of ten thousand feeble hands. But there is no way of selecting the genius except from the crucible of experiment and accomplishment.

Improving Research

So far, I have tried to say that educational research has abundantly proved its value and that it should be increasingly planned for and paid for by society. But, for several reasons educational research today is not realizing its complete potentialities; certain improvements are needed to make it function more fully. In conclusion, I shall mention a few of the outstanding things which, in my estimation, are needed to make educational research function more fully.

1. My first suggestion is that educational research should be, in the main, *practical* research rather than *pure* research. This suggestion is made particularly for research which is financed by public funds. Practical research is more likely to improve practice than is pure research; practical research has the dual aim of ascertaining the truth and of making that truth immediately affect practice. In pure research the practical value of the problem is not necessarily a consideration, nor is the making of the solution of the problem to affect practice a consideration. In the final analysis, however, pure research is practical, for its fundamental aim is to ascertain the *truth*, and all truth is useful or practical. In pure research the investigator must take two steps: first, select the problem; second, solve the problem.

In practical research the investigator must take five steps: first, form an acquaintance with the general field and decide upon the practical problems on which research is most needed; second, select the most practical and urgent problem for investigation; third, solve the problem; fourth, place the solution into operation; fifth, see that the solution which is placed in operation is continued until there is evidence that a change in the practice will be beneficial.

Making Results Known

2. Steps should be taken to make the results of research known to a large number of teachers and other school employees. Undoubtedly a large percentage of the discoveries of educational research are not functioning because school employees are not made familiar with them. Someone has suggested that we stop conducting research for a few years and spend our time in making people familiar with, and in putting into practice, what has already been ascertained; however, that armistice will be unnecessary if research workers will give more attention to the problem of getting their product properly before the consumer.

In my estimation, educational research could be made to function more fully if the persons who conducted it would take greater pains in reporting it. Too much research today is not functioning because it is reported in such a slipshod manner that it cannot be read except with great travail. Research should be reported clearly and interestingly so that any person with average intelligence could read, and would enjoy reading it. In other words, research needs to be humanized. Someone has recently said that too much of our present educational research consists in collecting information which everyone already knows and in presenting it in such manner that no one can understand it. Many persons could make a real contribution to education, and also make a good living, by taking theses and similar documents written by other research workers, and rewriting them in such a manner that the average person could read and understand them.

Genuine Research Always Needed

3. Just as bad money tends to decrease the value of good money, so pseudoresearch tends to cheapen all research in the eyes of the public. The teaching profession will therefore do well to distinguish carefully between *real* research and so-called research, and to place a premium on *real* research and a penalty or stigma on so-called research. Justly or unjustly, scientists in other fields charge that the science of education is overrun with quacks and incompetents. Whether that charge be true or not, the teaching profession should do everything possible to

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The Supervisory Conference

Supt. R. C. Clark, Seymour, Connecticut

The supervisor works with many instruments. The course of study, bulletins, teachers' meetings, and demonstrations are excellent ways of presenting mechanics of teaching, ideas, ideals, and objectives. Plans may be outlined and demonstrated. These are economical and effective methods. Useful as they are, however, they must be followed by supervisory inspection and conference, if maximum results are to be obtained. The teacher may have only partially understood, or she may have missed the point entirely. She may have caught the idea, yet be unable or unwilling to put it into practice. The fact that a teacher is able to expound good educational theory is not necessarily proof that she is doing good teaching. It may be that all the teachers' meetings and the bulletins leave her unconvinced of the desirability of the objectives set up. She may be left in a fog as to method. The idea that, if a teacher knows where she is going, she can get there, is erroneous. The only way to discover the effectiveness of these devices is by supervisory inspection. The most effective way to confirm her in her good work, to secure complete understanding, and to correct faults in attitude or method is by the use of the supervisory conference. Here the supervisor gets down to cases. The success of any plan of education depends upon the way the individual teacher understands it, and how she carries it out in her classroom from day to day.

Supervisor Must Understand the Situation

For the best results, the supervisor must enter the conference with a complete understanding of the situation. This understanding can be obtained in two ways; one, through the teacher's statement; two, through supervisory inspection. The teacher's statement is usually illuminating. This is especially true if there has been built up in the mind of the teacher a confidence in the professional integrity and competence of the supervisor. If the teacher feels that the supervisor is trying to help her succeed in her work, to the end that the children may profit, she is likely to be coöperative. The situation in which the teacher voluntarily discusses her problem freely and frankly with the supervisor is much to be desired.

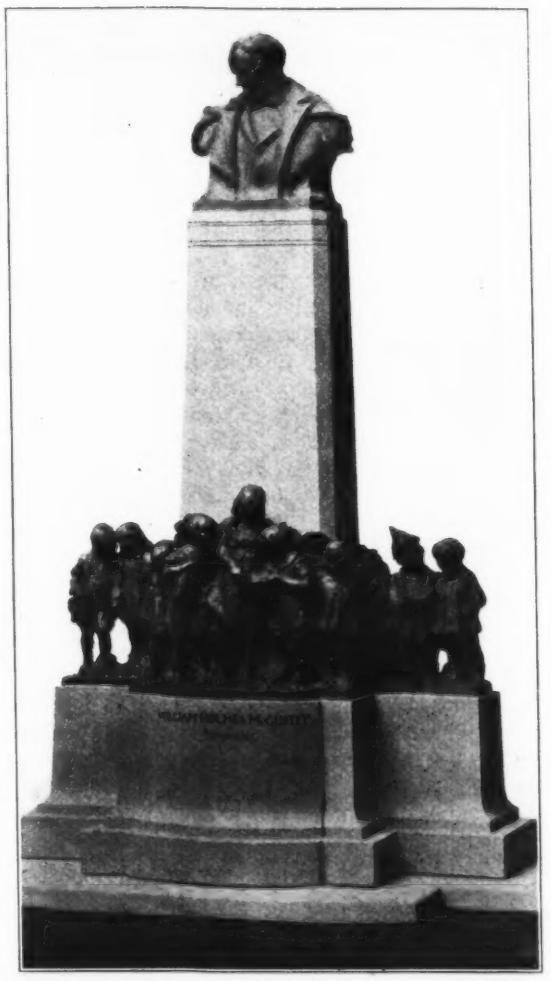
It is easy, however, to place too much dependence upon the statement of many teachers. Some teachers have not fully comprehended the situation. They are not aware of either the strong, or the weak, points in their technique. They have not comprehended the ideals, or objectives toward which they should be working. They do not understand that the children are, and have, individual problems. In other words, they cannot represent the situation accurately, much as they may desire to do so.

Unfortunately there are teachers who do not wish to present the situation accurately. Some of these teachers have a feeling of inadequacy. They would like to do a good job, but feel that they are not doing so. They want to hold their positions and feel that the supervisor will expose their failures. Others feel that they are doing well and that the supervisor is a disturbing element. The way they have taught in the past years is good enough. Often there is a small number who do not care to succeed. Either they do not expect to remain teachers, or they are intrenched, and feel that they can hold their position with little effort. The supervisor should know how the work of all teachers is progressing. The only way to find out is by supervisory inspection.

Effective Inspection by the Supervisor

So much of the success of the supervisory conference depends on inspection that we shall do well to consider effective inspection as a part of our problem. We shall assume that the supervisor is trained and that he has definite, clearly analyzed, immediate objectives which he would like to see attained. Furthermore, we shall assume that the objectives have been presented to the teachers through the course of study and the teachers' meetings. Many methods have been suggested and practiced for determining whether good teaching is being performed.

The first of these methods is the use of tests. Tests properly used, show the attainment of the pupils in gaining knowledge of the common subjects such as reading, spelling, geography, etc. To be illuminating, test results must show progress. In other words, to measure teaching, tests should be given at frequent intervals and the improvement noted. Teachers should not be underestimated, simply because the class comes to her below grade in achievement. She should not be discredited because the class she teaches is of a low mental level, nor should she be given praise for the high mental endowment and social advantages of her group. Intelligence and achievement tests given early in the year help the supervisor to get an accurate picture of the teacher's problem. There are limitations to the reliability of conclusions regarding teacher accomplishment, based on the results of tests. They are not always given under the best circumstances. Ability to organize, to form judgments, and to do independent work, are not measured by tests. Too much dependence on tests will tend to stimulate drill on subject matter, to the exclusion of other equally desirable activities. The tests should be used by all means, but their limitations should be fully recognized.



THE McGUFFEY MEMORIAL

The author of the McGuffey readers, William Holmes McGuffey, is honored in a memorial erected at Oxford, Ohio. Societies have been organized in several sections of the country aiming to keep alive the great truths and morals taught in the famous McGuffey readers. The latest society formed is the one at Spencer, West Virginia, headed as president by Ray Taylor, superintendent of the Roane county schools.

The second method advocated is the use of the check list. This is a list of the items which are essential to good teaching, such as temperature at 68 degrees, freedom of children to express themselves, good writing on blackboards, teacher activity well planned to promote pupil activity, and the like. The list is usually long and minutely analyzes good teaching. It has the advantage of directing the attention of the supervisor to the elements that go to make up good teaching. It makes his observations definite. Usually, it should not be taken into the classroom but studied before, and checked after visits. Most check lists are too long to be used in entirety at any one time. The supervisor should determine in advance what part he is going to use. He should not be petty and dwell unduly on trifles, but he should remember that these trifles indicate larger and more important things which should be noted.

General impressions are indicative but not reliable. I visited a classroom in a neighboring city in company with a supervisor. The pupils were busily, eagerly at work. On noticing me, the pupils at once called attention to a project that was being worked out. Here was interest, enthusiasm, activity. The impression was exceptionally good. The supervisor confided in me, however, that the work of this teacher while superior in many ways was deficient in many others which were equally important. She needed encouragement and appreciation along the line of her excellence, and helpful counsel in regard to the weak phases of her work. Had this supervisor been content to judge by general impressions gained by occasional, unplanned visits, he would not have been helpful to this potentially superior teacher.

The Supervisor's Conference

After the supervisor has secured a clear comprehension of the situation, he is ready for the conference. The nature of the conference may vary all the way from the very informal, to a regularly called group meeting. It is understood that the teacher is not to be corrected in the presence of the children. There is no objection, however, to comments such as, "This is excellent drill, Miss Jones. Did you ever try a contest in multiplication facts?" or, "I would suggest that you have a special monitor to attend to the temperature of the room." In other words, complimentary, constructive suggestions may be made at any time. I see no good reason why the supervisor and the teacher should not discuss methods, or objectives, so long as the discussion is kept on a high plane, not savoring of debate or of a "call down" of the teachers by the supervisor. Pupils should retain full confidence in the capability of the teacher. I believe that the supervisor is justified in discussing some points right at the time of visitation, while the children are at work at a task which the teacher has assigned. Provided that there is time for adequate discussion of the point, the individual conference may be held at recess. Otherwise it must be held at the close of the session. Both teacher and supervisor are busy people, but time should be taken for full and adequate discussion. Loose ends left hanging can do incalculable harm.

Attention should be called to the word "conference." It connotes a full and free discussion; it does not mean a lecturing of the teacher. The two persons meet on equal terms. Normally the supervisor has the advantage in training, special opportunity for research, and the broad general view. The teacher has the advantage of a first-hand knowledge of the room. Tact is right-

ly emphasized as one of the fundamental qualifications required in a supervisor. I am convinced that the great underlying element in the tact required is a respect for the ideas and motives; in a word, for the intelligence of the teacher. His is an appeal to reason. If, on the other hand, the teacher refuses to be open-minded, if she will not consider fairly the plan or advice of the supervisor, it becomes necessary for him to bring to bear what force of logic or authority is his to convince her. This is, however, a last resort. Usually, if the supervisor is practical and shows mastery, the teacher is glad to discuss the situation and to receive help and guidance.

Appreciation of Work Well Done

One of the rudiments of effective supervision is appreciation of work well done. If the teacher's practice is along accepted lines, if results are good, if there are signs of improvement, these should be noted and acknowledged. It is unfortunate to leave an impression that the supervisor does not recognize good work. There are few spurs to accomplishment more potent than the esteem of a competent critic.

I am thinking of a supervisor who devoted a teachers' meeting to a discussion of the topic, Artistic Schoolroom Decoration. The teachers took him seriously. Many of them worked long hours after school rearranging pictures and doing such other things as he had suggested. When he next visited, these teachers expected commendation. They were disappointed and chagrined that he failed to make any comment. Efforts along this line slumped. Words of appreciation would have stimulated further activity. Praise should not be scattered indiscriminately. To be valued, it must be earned. Once earned, it should be given. I have made it a practice for years to speak at each group meeting of some of the high spots I have seen recently in the teaching of those present.

Another part of the supervisory conference is the condemnation of that which is poor in the teachers' practice. We are repeatedly told that this must be done tactfully. I am inclined to think that the most tactful way is to be utterly frank and wholly impersonal. It is not necessary to be brutal, but it is important to be clear. It is a mistake to magnify small defects. They must be treated as such, corrected, but not magnified. It is a neglect of duty to slight large and fundamental faults. Some supervisors always precede any destructive criticism by a compliment on some good work the teacher is doing. In theory this is good, but in practice, if followed consistently, it leads the teacher to expect adverse criticism with every commendation. Sometimes it leads to confusion. It is often possible by a discussion, or by questioning, to reveal the weakness in such a manner that she feels that she has discovered it herself. At all events the supervisor must make sure that the error in method or underlying philosophy is revealed and condemned.

Constructive Suggestions and Plans

Whether the work of the teacher merits praise or condemnation, or, as is more probable, both, there should be constructive suggestions or plans. If the teacher is inexperienced and her method not yet determined, she is at a stage where constructive criticism, aid in forming plans and guidance in outlining activities are sorely needed, and will promote teacher efficiency. If the teacher is experienced and has built up a technique, she should be led to improve this by constructive supervisory suggestions. If she has built up teaching practices which are all wrong, these must be replaced by new and better ones. Here is the supervisor's opportunity.

So long as a thing is a matter of opinion, the supervisor may give his for what it is worth. He must not be unduly disturbed if the teacher does not accept it as superior to her own. He will have to enforce it by sound logical reasons based on fundamental principles of education, educational psychology, sociology, or common sense. This involves careful preparation regarding the particular problem, as well as a thorough grounding in principles. Often the teacher may be referred to books in which the idea is clearly and forceably stated by authors who have made careful and constructive study. The aim is to make the teacher self-supervising. If the supervisor can succeed in awakening the teacher to active intelligent study and thinking for herself on the problem confronting her, the conference becomes a matter of delightful discussion, edifying and helpful to supervisor and teacher. Progress is assured.

Value of the Group Conference

We have been considering up to this time the individual conference. It often happens that several teachers have a common difficulty. In this case the supervisor may meet with these teachers in a group conference. This conference should be only for those teachers to whom the subject discussed has a real present significance. In general the meeting should be a discussion, not a lecture. It should give teachers an opportunity to contribute their opinions, but the discussion must be carefully led and directed by the supervisor. He is, or should be, the expert.

Supervision to be effective must deal with specific cases, and the improvement of the instruction by individual teachers. It must reach the actual problem presented in each classroom. With this in mind the supervisor studies the fundamental principles of education. He studies the specific situation and applies these principles to it. He presents it tactfully and effectively in the supervisory conference.

New Problems in Public-School Finance

M. C. S. Noble, Jr., Raleigh, N. C.

Although there is a diversity of opinion as to the wisdom of federal support, there has been widespread approval in the United States of the notion that public education is not only the obligation of local communities, but also of the separate states. To support education within their borders the separate states first practiced per capita methods for the distribution of state school funds and, in more recent years, have set up equalizing funds. And in 1931 a most complete example of state support was established when the North Carolina General Assembly assumed support of the six months' term,[1] and provided in addition what is in substance, an equalizing fund for the extended term.

Since the tendency in the field of public-school support is toward increased obligations on the part of the state rather than on the part of local communities, and since public-school progress promises to be determined largely by the nature of state sources of revenue, it seems only natural that school administrators and educational research workers should give some attention to the study of state sources of revenue.

In our consideration of state sources of revenue let us inquire in the first place: Why is there a tendency from local support to increased state support? Many answers could be given to this inquiry. Among the primary reasons, the following should be listed:

1. The general inefficiencies peculiar to small units of school administration.

2. The fact that localities (counties, townships, districts, etc.) within the separate states have already had a "taste" of state aid and want "to go the whole hog or none." They would unburden themselves by placing their burden upon the state.

3. For the locality there is only one sizable local source of revenue. This source, the "ad valorem tax" is now proving everlastingly unpopular throughout the entire nation. And,

4. The entire people of each state have awakened to the realization that state aid is an effective way by which educational opportunities may be equalized at high standards, in such a fashion as to give to each and every child living within the state an opportunity to "burgeon out all that there is within him."

[1]At minimum standards leaving to the localities the right to supplement state funds. The provisions for the extended term were already in effect prior to 1931.

Shall Educators Lead?

In the second place it is proper to inquire: As an advancing civilization demands increased educational expenditures, should school authorities allow themselves to assume the position of advocating certain sources or certain types of sources of state revenue? For schoolmen to advocate a certain source of revenue is to alienate the sympathies of the group affected by the tax. Advocacy of a certain tax, by school leaders, may be followed by the allocation of that particular source of revenue to educational purposes. It seems best, therefore, that state appropriations for education should come from the General Fund of the state.

A third pertinent question would be: What type of recommendations should educational leaders make regarding state sources of revenue? The writer would suggest that the educational leaders call upon their legislators to establish scientific systems of taxation. This demand should be accompanied by the reminder that no system of taxation can be equitable, just, or scientific until it has first been subjected to objective scrutiny. Without "standards" there can be no scientific system of taxation.

Sequential to question three comes the following question: What are the characteristics of our present unscientific system of taxation? While it is interesting to note that during the period 1890–1930 the annual tax collections in the United States (federal, state, and local combined) have increased from $875,000,000 to $10,714,000,000 — an increase of 1200 per cent — it is appalling to note that these huge sums have been collected without the aid of "standards" organized in the form of objective scales. Although Seligman has mentioned "universality" and "ability to pay" as standards for the selection of sources of revenue, in the past sources of revenue have been selected, in the main, on the basis of two criteria; namely, (1) adequacy of amount, and (2) political least resistance. In other words, the tax expert and the legislator have conducted surveys to determine which sources of revenue are adequate to support those governmental activities which they either wish to recommend or are forced to recommend. When several adequate sources of revenue have been discovered, selection from this group of adequate sources has been solely on the basis of political least resistance. To this day, therefore, there are no satisfactory standards for (1) selecting, (2) collecting, and (3) distributing revenue. Educators will do much toward providing adequate funds for education when they advocate the establishment of stand-

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Air Pollution and Its Effect on Health of School Children

R. C. Demary, Akron, Ohio

That the pollution of air by smoke, soot, free ash, and other substances has a direct bearing on the sickness and death rate from pulmonary diseases has long been believed, but not until recently have any attempts been made toward conducting an intelligent survey.

A few years ago, Manchester, England, Berlin, Germany, and a few other European cities made quite extensive surveys which resulted in finding that a very close relation exists between air pollution and pulmonary troubles. American cities were slow to realize the importance of these findings, largely because of existing smoke ordinances. These ordinances were enforced, in a rather haphazard manner, due in most cases to the lack of support on the part of the people. Many of our leading medical authorities questioned this close relationship between air polution and health, and well they might, because no one in America seemed sufficiently interested to go to the trouble of making a careful and intelligent survey.

One of the first to become interested in this country, was Dr. Samuel Haythorne, of the Singer Memorial Research Laboratory in Pittsburgh. Wm. Charles White, associate professor of medicine at the University of Pittsburgh, and C. H. Macey conducted a very extensive survey several years ago and found that a very close relation exists in Pittsburgh. Dr. Shirley Wynne of New York City, made a similar survey with like results, and for the first time the people of New York City were given facts indicating the great necessity of clean air.

The so-called "city smoke ordinances" have long been a thorn in the flesh of most American cities and have been barely tolerated because of the old fallacy that "smoking chimneys mean prosperity." Now that it has become a question of health, the people are awakening to the fact that something must be done. The result is that smoke ordinances are being amended to cover air pollution. The health departments have become so aroused over the situation that cities in various sections of the country are becoming interested, and one county in an eastern state has recently passed a very stringent ordinance covering air pollution.

During the past five years Akron, Ohio, has kept a very careful record of soot and ash fall and of other substances floating in the air, which tend to pollute the air. The city has been carefully divided into districts or wards, and in certain places in each ward hard-rubber jars have been exposed. These jars measure 4 by 4 by 5 in., and are filled to a depth of about 1 in. with water. In the wintertime a mixture of glycerin is used to prevent freezing. The liquid holds any solids that fall into the jar from the air. These jars are collected each month, the water evaporated and the solid contents weighed. An analysis of the solids is frequently made and is rather interesting. The analysis usually shows soot, ash, sulphur, and tarry compounds in a fairly large quantity. There are also found brick dust, cement, and rubber due to the natural wear of pavements and tires, lint from clothing and dust mops, both animal and human excrement, and in some few cases diphtheria and other dangerous germs.

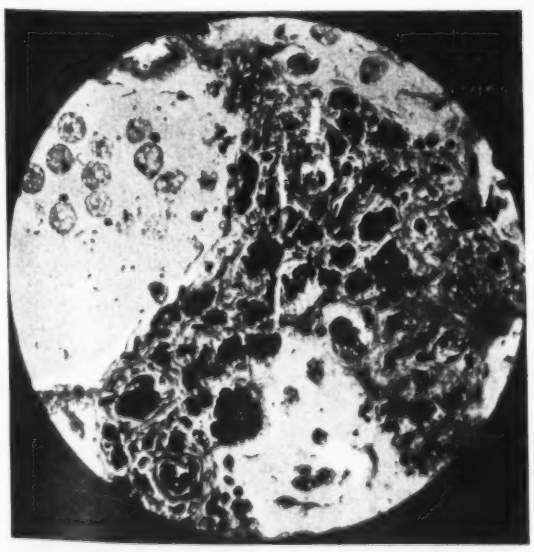
With these facts at hand it has not been difficult to conduct a survey in this city. In carrying on the study, the writer sought the aid of Mr. R. H. Erwine, assistant superintendent of schools, and through his efforts secured a very close check on the sickness among the school children. The lists obtained have been divided into wards both as to location of the school and the residence of the children. This took considerable time and when completed for the year 1930 the relation between air pollution and sickness was found to be very close, as shown by the accompanying chart. The survey also covered the deaths from pneumonia, but included adults as well as children.

PNEUMONIA AND ANTHRACOSIS

This lung has been cut in half and both parts are shown. Before the pneumonia began this lung was probably perfectly black. The cells containing the black pigment are separated by the pus which filled all of the air spaces. Pneumonia is more dangerous when the lungs are filled with coal pigment.

Smoke itself may not be injurious to a child, but it diminishes or shuts off the sunlight with all its health-giving rays. More important, it has been found that the much-needed ultra-violet rays are indispensable if we are to have healthy children, and they constitute the best preventive of rickets known.

A prominent author recently remarked: "Man disposes of his sewage in a peculiar manner. He casts it into the very streams from which he derives the water he drinks and in a like manner he pollutes the very air be breathes."



MICROPHOTOGRAPH OF LUNG WITH SEVERE ANTHRACOSIS

The walls of the air space are filled with pigment-bearing cells. This is a very high-power photograph of a late stage.

MICROPHOTOGRAPH OF LUNG WITH SEVERE ANTHRACOSIS

All of the vessels are compressed and surrounded by pigment cells. This was an unusually severe case and the individual died from pneumonia.

Courtesy of Singer Memorial Research Laboratory, Pittsburgh.

As compared with 4½ to 5½ pounds of solid and liquid foods which he consumes, the average child of school age breathes from 25 to 35 pounds of air daily. In other words, the weight of air breathed is approximately 6 times as great as the weight of food. Health departments have made it possible for every school child to have pure food, but strangely enough pure air is given scanty consideration.

In making this survey and a study of the effects of air pollution upon the lungs, a number of actual specimens were used. Sections of lungs from both adults and children living in the cities and in the country were secured and, by making a study of sections under the microscope, a great amount of hitherto unknown facts were obtained. Not only was this information of great value, but it forms a base from which to attack the air-pollution problem.

The lungs of a baby are pink and spongy. The lungs of an adult who has always lived in the country where the air is clean, are also pink and fluffy similar to those of a child. The lungs of one who lives in a place where the air is polluted with soot, ash, and other foreign substances have been found to be bluish black in color and had a leathery texture. This condition has been found in comparatively young people.

In examining sections of lungs it was found that, in breathing, soot, ash, and other solids were taken into the air sacs and thence into the

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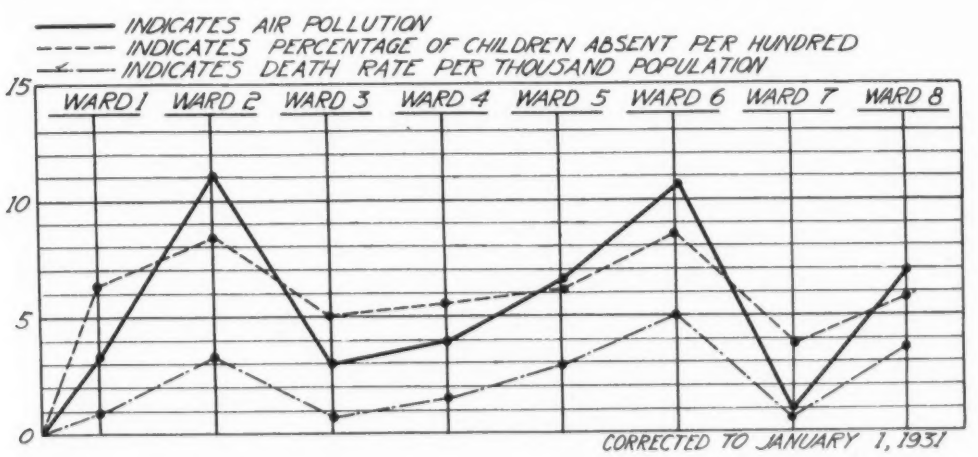


RELATION BETWEEN AIR POLLUTION IN GRAMS PER SQUARE FOOT, DEATHS FROM PNEUMONIA, AND CHILDREN ABSENT FROM SCHOOLS DUE TO SICKNESS

A Simple Method for Determining the Relative Efficiency of Coals

H. L. Feinstein and J. C. West, University of North Dakota, Grand Forks, North Dakota

The problem of selecting the most economical coal for the school heating plant is an important one and certainly is not new. Lately there has been a strong trend toward basing the cost of the coal upon its heat analysis. The heating value of the coal is usually expressed in British Therman Units (B.T.U.), which technically defines the amount of heat that the coal will liberate on burning. The practice is to pay a bonus to, or receive a penalty from, the seller depending on whether the heat analysis shows an increase or a decrease from a given B.T.U. content stated in the contract for coal purchases. However, it is now well known in boiler economy that the effective heat derived from a given coal for a boiler is not directly dependent on the B.T.U. content of the coal only. Factors such as the per cent of the full load carried by the boiler at the time, the method of stoking, draft, and many other variables have a great influence on the economy of the coal burned. It is not impossible that for a given furnace more utilizable heat may be obtained from a coal of lower B.T.U. content than from coals of higher heat analysis.

Hence, the economy of the coal when being burned in an individual heating plant is more important information than its B.T.U. content or ultimate chemical analysis. A simple method for determining the relative economies of various coals for a specific heating plant is here given. This method is by far the simplest way to determine the answers to the following questions:

1. What type of coal gives the best results in a given boiler?
2. What stoking method for any boiler is superior?
3. How are the comparative efficiencies of individual firemen set forth?
4. Does one type of coal burn better during the heavy winter months and another during the lighter months of the year?
5. At how many pounds of steam does a given boiler operate most efficiently?

The only apparatus needed is a meter to measure the condensed steam returning from the radiators. This meter is standard equipment in some heating plants and wise economy on all heating plants.

A chart is filled out daily in approximately the following form:

BOILER ROOM SHEET

Month_____ 193__

Date	Boiler Pressure			Temperature			Am't of Coal Consumed	Meter Reading
	7 A.M.	Noon	4 P.M.	7 A.M.	Noon	4 P.M.		

SHEET FOR RECORDING COAL CONSUMPTION

The important factors to note are: the amounts of coal used, and the quantity of the water condensed. The remaining information will aid in selecting the days most suited for giving reliable data but are not absolutely essential; since, if the day be somewhat warmer than usual, less coal will be used, and the amount of water condensed will likewise be low — the ratio of amount of coal used per amount of water condensed will not be much different from that of a day when the heating system is working at full capacity.

Now having burned a sample of coal for a fair period (one week ought to be enough for a thorough testing if the weather is such that the heating plant is forced to work at average capacity or greater), select those days which the chart shows are average days on which the heating plant is used.

Find the total amount of coal used, express it as tons.

Find the total amount of steam condensed while the above amount of coal was burned; express it as pounds or gallons or cubic feet, whichever is most convenient, but use the same units on all samples.

Find the cost of the coal per ton.

If W = amount of coal
V = amount of steam condensed
C = cost of coal

then $\frac{V}{W \times C} = F$, where F is the factor of the coal sample for that particular plant. This factor is units of water condensed per dollar. The larger the factor, the more desirable the coal.

For example: A heating-plant manager regularly using coal costing $8 a ton finds that in a given period (the number of days, you will notice, is not a factor in the calculations) 30 tons of the coal were burned and 24,000 gallons of water were condensed.

Then changing to a cheaper grade it was found that 10 tons costing $5 a ton evaporated 4,800 gallons of water.

From the formula, for the regular $8 a ton coal,

$$F = \frac{24{,}000}{30 \times 8} = 100$$

For the cheaper grade,

$$F = \frac{4{,}800}{10 \times 5} = 96$$

Hence, the regular $8 a ton grade is more economical.

The size of the factor F will vary for different heating plants, but will be a good measure of relative heating economy for each plant. That is, the factor can be used to compare coals in a single plant, but not between two plants. The equation here developed is so simple and easily understood that it is bound to become the basis of standard practice in all school systems and other large institutions.

Likewise: to determine the best stoking method, to find which of the firemen are most efficient, to ascertain the type of coal most suited to the season, or to discover at what boiler pressure the heating plant operates most efficiently, this same simple formula can be used once the data is collected by means of the boiler-room chart.

A Study of the Progress of Under-Age Pupils in Milton, Mass.

During the school year 1926, a rule governing the admission of children to the kindergarten and first grade in the Milton, Massachusetts, schools was amended to provide that children mentally above the age limit be admitted during the first month of the school year. Under the rule, children who would be 5 years old before January 1 of the following year, were admitted to the kindergarten in September, and children who would be 6 years old before January 1, were admitted to the first grade during the month of September. A provision was made that children mentally above the age limit might be admitted to school during the first month of the school year, or later, if their residence in the city began after the beginning of the school year.

The revision was made at the request of Supt. Horace F. Turner, to meet the constantly recurring problem of a few children, who might be required to remain out of school for another year under the rules then in force, because they were short a few weeks of the required chronological age.

In December, 1930, a request was sent to the principals of the elementary schools, inquiring in which quarter of the class in academic work each pupil stood, who was admitted under the amended rule. The findings of the study produced some interesting information relating to the progress of these pupils, as compared with other pupils in their respective classes. The information was based solely upon the judgment of the teachers in the respective classrooms where the children were located, and did not include any objective tests.

During the five years in which the plan has been in operation, a total of 303 pupils qualified for admission to the kindergarten and first grade. Of the total number, 258 are still in the schools, and are distributed among the kindergarten and first four grades of the elementary schools and in the opportunity classes for rapid advancement.

In the highest quarter of their class, it was shown, there were 33 per cent of the whole number in school; in the upper half, there were 62 per cent, and in the lowest quarter, 16 per cent. It was particularly significant that, of those in the lowest quarter, 66 per cent had been in school less than four months. It was evident that the difficulty of accurately ranking children who have been in school only a short period of time on the one hand, or of children giving evidence of their real ability on the other, is a possible explanation. The condition apparently corrects itself, with longer school attendance, since only 7½ per cent of those in school a year or more are now in the lowest quarter. Factors such as illness, and other conditions which might have operated to keep children from achievement commensurate with their mental ability, were not considered in the study.

The findings revealed that under-age children are successful to a degree somewhat above the average for their school grade, and that their ability to excel becomes more noticeable as they progress through the grades. It is probable that each one of the 258 children will finish school and enter their lifework a year earlier, as a result of the revision of the rule governing their admission to school.

A Place in the Sun

By a Superintendent

SEVERAL years ago, while scouting for new teachers in a neighboring state, I ran across an old friend whom I had not seen in some time. He was a man who had rapidly advanced in educational work, his name had often been featured in news items in the daily papers, and he had been prominent in convention and association affairs.

We had dinner together on the train, and afterward, in the smoking compartment, we talked until late in the evening. It was a revealing, disturbing story I heard. As a result, the following account was written — at my suggestion.

"If you could get all this business you've been telling me into print, it strikes me it might be a good thing for some other fellow; it might be of real help to him. Why don't you write it up? Keep your own name out of it. Tell it in a way that will conceal your own identity."

From time to time I have recalled this conversation. I wondered whether my friend would write as I had suggested. Yesterday morning the following account came through the mail. Here it is in his own words. The title is my own.

Some time ago one of our high-school graduates gave me as a parting gift a handsomely bound book entitled, *The Melancholy Tale of Me*. The name is suggesting, and in the past few months, came to hold a very personal significance for me.

I realize very clearly it is not easy to write an honestly melancholy tale of oneself. I suspect that nearly everyone who has any pride in position or accomplishment, when he is trying to analyze troubles into which he has fallen, is pretty likely to justify his acts which brought about his troubles. I'm not going to attempt to justify myself.

Again, if this account ever does get into print, I shall have changed the exact train of circumstances to a great extent, so that I may keep my identity to myself. I have been hurt, awfully hurt; but I still have pride enough to want to avoid the old, familiar head-wagging as I pass, the sympathetic looks of my friends, those quiet exchanges of "What's new?" heard in corners at the conventions. I believe only a few will recognize me in this recital; If you happen to make a shrewd guess, I ask you to be a good fellow and say nothing.

This, then, is the story, the melancholy story of a man who has more than once been pointed out as one of the "best-known educators in the state." It is the story of a man who made good on a hard job, but who let his personal ambition warp his perspective. I told this story the other night to a friend I met on a train, and he said he thought "I must have got the sun in my eyes." I believe his diagnosis is correct.

Yesterday I wrote a letter, a very short letter. Very much changed from the original, it follows:

"For some time I have realized that the constantly increasing exactions of my present position need more and more of my time. While I have very much enjoyed my work as a member of the ——— state committee and my pleasant associations with the members of your Department, in justice to myself I feel I can no longer continue. Therefore, I am asking you to accept this resignation, and to appoint someone else in my place."

Good-by to all those pleasant dinners at the Department table in the chain hotel at the capitol. Good-by, a long good-by, to all those confidential discussions of policies that made me so important in the eyes of the lesser circles looking on. And more than this, good-by to a lot of other pleasantly important positions I've managed to secure. Good-by, and good riddance! Believe me, I'm out of those jobs before I'm out of a real job that puts a roof over the head of my family. Thank Heaven, I found out when I did; at least, I have a fighting chance.

HOW did I get into my present predicament? Just about the same way that a number of other fellows in the middle thirties are probably doing; that's why I'm writing this. I was graduated from college with a pretty fair record. Made good as a teacher in a high school. Did a lot of extension work, and when the principal quit, was chosen for his job. Worked without stint to make good, managed to come through successfully, and then went into my present position, a good job in a pleasant town.

I've been here about eight years. There were a lot of troubles in the schools when I was first appointed, but I gradually straightened out most of them, and built up a rather strong organization. I put all my time and attention into my work, and it was recognized by the school board with several good increases in salary. I told myself that I was a comer. I began to look around a little, not particularly for another position just then for my wife and I liked the town, but more especially for other circles where my ability would carry me forward. I wanted to become a more prominent man.

I don't know that I am altogether to blame in this ambition. Often enough, at conventions, I'd see a little group of schoolmen gathered around someone sitting in a big chair in the corner of the lobby, apparently hanging on his words. I wanted to be the man sitting in that chair. I wanted to be one of the men invited to attend some of those star-chamber sessions where the big fellows met to decide the policy of the schools toward this and that bit of state legislation. Not all these men were holding large jobs, yet they were important men who called each other by their first names. When I went to the convention dinners I wished they would not look past me without recognition; I wanted them to look at me. I envied them the easy give and take across the tables, the good-natured wise-cracks poked at them by the chairman when he was introducing the after-dinner speaker.

Then, too, in my own town I wanted to be one of the citizens *in* on things. It is needless for me to go into detail in this connection; few will fail to know the significance of this classification. Not that I was socially ambitious, especially, but I did want to be considered an influential citizen in the inner circles of the town. I wanted to be rated as one of the civic leaders; I wanted to be known as something more than merely a good school superintendent.

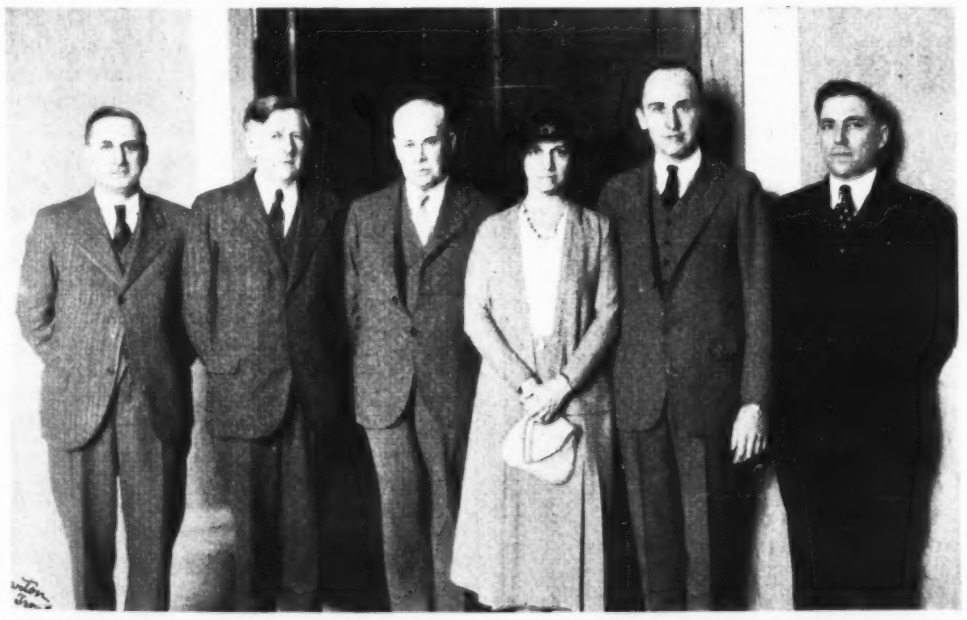
Unworthy ambitions? Answer the question for yourself, and while you're at it, just search your own conscience a little. Maybe you've had a few heart-throbs along the same line yourself.

I guess what I really wanted more than anything else was to hold a place in the sun. But, confound it, it never occurred to me I might get the sun in my eyes — again to quote the homely expression of my friend.

SO I set to work to attain these ambitions. I mapped out a regular plan of campaign. Naturally, I didn't say anything about my scheme, but I made it my business to cultivate the acquaintance of people who might help me get ahead. I found the telephone very useful in this process. When various open local meetings were held, I was on hand; I anticipated questions that might come up for discussion. I carefully prepared short, snappy speeches, delivered them as if they were extemporaneous, and consistently tried to maintain an alert, interested attitude toward what others, especially the more prominent, had to say. I never hurried away from these meetings. I quickly discovered that it paid to sit at the right tables, to be seen with the right people. I learned the judicious use of the expression, "That's a very interesting solution of the problem, it seems to me."

All these and a hundred other old dodges, most of which you know as well as I do, helped in my campaign.

How did I make out? Pretty well. One honor seemed to bring others in its train. When I went over the balance sheet at the end of the year, this is where I stood:



BOARD OF EDUCATION OF TROY, OHIO

The citizens of Troy, Ohio, point to their board of education with special pride, in that its membership is representative of the highest cultural aspirations of the community. It is noteworthy that every member was a former college student and most of them are graduates of higher institutions of learning. They are connected with the business and professional interests of Troy, and have been prominently identified with its civic and social progress. The Troy Daily News says: "Very few cities of the country can boast of a board of education with as high qualifications for the office they fill as Troy can."

The members of the board of education are, left to right: Raymond Kerr, Walter Coles, Dr. George McCullough, Mrs. Laura A. West, William H. Hobart, and Frank Montross.

President of the Sectional Teachers' Association
Chairman of the Boy Scouts
Trustee of the Public Library
Director of the Welfare Commission
Secretary of the Service Club
Director of the Country Club
Member of the County Examining Board

Almost any day, now, I could pick up the local paper and see my name in print as a delegate to this, or a delegate to that. Evidently I was getting ahead. And this easy advancement readily pointed the way to larger possibilities. What had worked so well in the town and county might, with some variation, work in the state. It did; at the end of the second year of this quiet crusade I found myself elected to a really important office in the State Federation of Teachers, to say nothing of several other desirable, although not so conspicuous positions.

THROUGH all these successes, and later on, through other and larger successes which I won't and can't mention without giving my identity away, I flattered myself that I moved with becoming modesty.

Of course, it was rather hard to do this. I would not have been human if it had not pleased me to occupy conspicuous positions on the programs of meetings, although it did take a lot of time to prepare the papers I read. How could I avoid being pleased when so many of the fellows would come up to me at conventions and say, "Boy, that was great stuff you handed them today in that speech."

Occasionally some of these addresses were printed in the local papers. I took pains to send each member of the school board marked copies, feeling sure they would be glad to see the publicity their superintendent was bringing the schools. Usually the editor prefaced the copy with the statement, "Our readers will be glad to know we have secured for publication in our columns, the following address given by our school superintendent at the recent state educational meeting."

Surely, it was a fine thing for the town to have the schools represented at so many meetings in various parts of the state.

As chairman of the program committee of two or three organizations, I formed many contacts with the well-known speakers whom we engaged. I was surprised to see how friendly they were; sometimes, often in fact, at the beginning of their addresses some such remark as, "When my good friend, your school superintendent, invited me to appear on your program," etc., — well, I must confess I was not exactly averse to being pointed out in this fashion. It was pleasant to be known as the good friend of the visiting dignitary. It was fine, this hobnobbing with the great.

It gave me a big feeling of satisfaction when reporters began dropping in to see me at the office, to see my opinions quoted the next day in print. Several times, after I had been elected to some new position, editorials appeared, congratulating me on my successes and the new honors I had brought to the town. Often the chairman of the local Improvement Association, or the president of the Country Club, or some other prominent citizen, would run in to see me at the school, and chat pleasantly with me half an hour or so after we had gone over some matter arising in their own organization.

AT THE end of these two years, I felt I had every reason to congratulate myself. From comparative obscurity I had rapidly risen to a position of prominence in not one but many organizations. No longer was I in the audience; I was on the platform. Now the big fellows I met at dinners looked at me, not past me. And I was the more proud to have scaled these heights in a relatively small position. I could say I was a big man, even though I came from a small town. Occasionally I let myself conjure up pleasant visions of unasked-for but deserved promotion, possibly into State Education Department, certainly into some good-sized city. At the meetings in the national conventions more than once I looked up at the presiding officer and thought to myself, "Well, old fellow, some one of these days I, myself, will be up there where you are." More than ever I believed the old adage that a good man can't be kept down.

Naturally, with all these affairs of importance pressing me, my time was utterly taken up. I realized what men in business mean by the expression, "busy executive." As I found myself becoming more and more a busy executive, I thought I could see where I had made a mistake in paying so much attention to the details in my office. They seemed petty, compared with the larger affairs that now surrounded me. For example, at one time I had prided myself on the thoroughness and promptness of my reports. I eased up on these; as a matter of fact I had to, simply due to lack of time. Formerly I had spent a good deal of time in the classroom. Now, I reasoned, the teachers knew me, they knew my policies, they knew what I wanted. Then, too, in connection with this, I wondered if classroom supervision might not be destructive to the individuality of teachers. So I arranged for a series of reports of class progress and graphs of promotion, and I installed other devices, characterized in my mind as timesaving devices for the busy superintendent, and only occasionally paid short visits of inspection to the rooms. And there were many other ways in which I found I could free myself from the daily humdrum, the daily treadmill of school activities I had walked until this time.

In these changes I reasoned the board knew well enough by this time that I must be conducting a good school system; otherwise, my opinions would not be so much quoted, my services would not be so much in demand elsewhere, I never could have become so influential in so many different directions.

IN ALL the bustle of these new experiences, I found I had little time at home. Almost every night, now, there was a committee meeting, a dinner, a speaking engagement that took me away for the evening, and frequently for the week-end, to say nothing of the important people we entertained at home, whose coming we welcomed as a part of the new order of things. I did miss the simple pleasures my wife and I had enjoyed together so many years — the dropping in of our neighbors for an evening of bridge, the "ride around the block together" just before bed, the sitting down with my son and talking football with him, and all the other homely, unimportant things of our household. I must admit my conscience smote me occasionally, as, for example, when my little girl wanted me to help her with her stamp collection one night, just when I was leaving the house. Her remark, "You never have time now to help me with my stamps," made me wince for a moment. But only for a moment; some time or other she would understand how hard her Dad had worked to get ahead when she was a little girl. Yet, her disappointed look kept coming into my mind during the evening, and I am afraid I did not make my usual good showing at the meeting.

During the period which is the freshest in my mind, and when I was the busiest, I was on the last lap of a four-year contract. In our state there is no such thing as tenure of office, a provision which is found in some of the eastern states. Long-term contracts, however, are legal in our own school law, and quite customary among schoolmen holding the more responsible positions. I looked forward to my arrangement with the board with a good deal of complacence and complete confidence, almost curiosity in a way, for I couldn't help wondering just how far they would push the limit to hold me. My wife and I had talked over matters considerably and she was anxious to stay; she said that now since I had reached my present position, "she didn't want to go through all that again." Then, too, we were settled in a pleasant town, and with a good, big increase we could afford to stay a few years longer while we were still young and while the children were still in the grades.

THE good, big increase was what I wanted. I felt it was due me for all that I had done for the town, and for what I had become. And with equal frankness, I could certainly use the money.

In attending conventions, in belonging to many organizations, and in keeping up with the other big men with whom I was now associated, I found there were a great many new necessities which added materially to our family expense. When I saw my modest car parked alongside the pretentious sedans in which my friends traveled, I felt I really owed it to my position to ride in better style. The garage men agreed with me, and the installment payments began. Surely it was necessary for me to wear good clothing; we were virtually compelled to secure a larger and more expensive home, simply because my wife and I did not wish to accept the invitations which now came to us, and not be able to entertain nicely in our turn. This cost money. I was too well known, too prominent in the community, not to find myself expected to give generously to the many worthy enterprises in need of help. Then, too, I could not afford to have local tradespeople get the idea that I was a big man who was slow pay. It kept my nose to the grindstone, I'll tell you.

Well, the time came for the meeting with the committee and the settling of the new contract. While I thought I really deserved more, I had tentatively decided to accept without argument a three-year contract, calling for a five-hundred-dollar raise the first year, with successive increments of the same amount each of the two remaining years. I thought this would be fair enough for me, and the board and the town would know they were taken care of in the schools for three years longer, at least. So I made this proposition to the committee. I was a little surprised when there was no especial comment, but I figured they saw no reason to do more than learn my wishes.

THEY learned my wishes, true enough. But when I learned the school board's decision, I was absolutely astonished. The three-year contract I had decided to accept melted in their handling to an agreement for one year; and my suggestion for the five-hundred-dollar raise failed to click — the salary on my new contract was the same as on the old, plus a miserable increase of a hundred dollars, the amount offered the rank and file of the teachers. I couldn't believe my eyes, yet there were the figures, and there was the record in the board's minutes.

My contract came in the afternoon mail, the day after the executive session of the board. It gave me a bad night, believe me.

But, I felt better the next morning. Surely, there must be a mistake, somewhere. I could understand how the board might have reasoned — that taxes were high, that the factories were not running to full capacity, and there was some whispered talk of moving one of the plants elsewhere. Probably the board felt they should retrench in some directions; but it did seem a rather curt way to let me down. Well, I considered, I'll ask for another committee meeting, talk over with them the possibilities for myself when more prosperous times return, and clear up matters, let them know I am big enough to be generous, and set myself right. This year I'll let it go, but next year or soon thereafter. . . .

Yes, the committee would be willing to have a meeting. They would see me that very night.

IT WAS a long day. I stayed out of the office and went around through the classrooms. The children were at work; the teachers I visitied were busy enough. Just watching the good

old everyday turning of the wheels, mentally noting some matters I saw would stand some adjustment, making a suggestion here and there, checking up on some of the records — well, the old, familiar routine served me as a mental stimulus. It was good to be there; I came back to the office with a light heart.

And yet, one of the teachers had smilingly remarked as I entered her room,

"Quite a stranger! We're glad to see you."

Curious remark, that. A stranger in my own school. Well, she would see more of me thereafter.

The chairman of our committee is a man well along in years, a kindly disposed old gentleman, once a Judge in the State Superior Court. Now he is retired, and is quietly living in a large, old-fashioned house, where a great bank of rhododendrons is massed across the front porch. They were in full bloom that night, I remember, and I spoke of them as we shook hands at the door.

It seemed to me there was an unusual note of restraint in the way the Committee greeted me, an absence of the good-natured small talk that usually preceded the business of our somewhat infrequent meetings.

Said one of the members:

"My boy tells me you were in his room today."

"That so?" I replied; "Who is his teacher?"

"Miss Jones," rather dryly came the answer.

Well, thought I, I can't be expected to know all the children. Yet it might have been a little more diplomatic if I had not acknowledged the fact to a board member, especially when the child happened to be his own son.

And then the judge spoke.

"That's just the whole trouble, Professor."

He always called me by the old-fashioned title.

"Professor, you are fast becoming a stranger in your own school!"

And the teacher only that morning had remarked, "You're quite a stranger." Well —

I CAN'T go into the details of the conversation that followed. I remember a fragment here, a statement there. But if I could recall everything that was said, I could never bring myself to a recital of the words that simply tore my web of conceit — that was what it was, a web of conceit, wide open.

That I had neglected my real job to become a publicity seeker; that I had practically turned over the school to the teachers; that I had spent hours of time in irrelevant conversation with every Tom, Dick, and Harry who had come into my office, when I should have been at work on supervision; that I had been out of town days and days, attending meetings of every description, yet expecting and drawing my salary, just the same; that my reports, instead of offering constructive suggestions for the improvement of the schools, in late months had come to resemble a travelog, more than anything else — well, all that and more, in the quiet of that library.

"I know what I am saying is coming as a shock to you," said the Judge. "I hate to hurt your feelings. But what would you have me do — equivocate and beat around the bush, or come straight to the point? It is no pleasure for me to speak to you in this way. Yet, I would remind you that when you were first appointed here I told you I believed in you and that I would stand by you. I submit that I have kept my promise. And I am friendly enough to you to tell you the truth, unpleasant as it is."

"That's right!" broke in another member. "If it hadn't been for the Judge here, you wouldn't have been hired for another term. The Board had three special meetings about you, and I guess the Judge made some pretty bad friends that last meeting when he finally got them to give you another chance."

Three meetings! A fight to reëlect me!

"I am afraid I know what you are thinking," the Judge went on after a long moment. "Maybe you think your friends among the big men in town will come to the rescue. Don't you believe it; they will be sorry, but they are busy enough with their own affairs. And even if they did make an effort for you, what do they know about you as a schoolman? They can testify you are a good secretary of this, a good speaker at that, but what do they personally know about the work of the schools? Let me tell you it is the great, quiet mass of the common people, those who send their children to the schools, who are struggling hard to pay their taxes and keep their heads above water in these hard times — it is the common people who are hiring you and paying your salary. This board of education and every board of education is a steward of the interests of the entire town, not of a privileged few.

"Or, more likely you are thinking how you will turn your back on this place and go to some other town where you will be more appreciated. It would be entirely natural for you to feel this way. If you should decide to attempt this change, I promise you the board will not stand in your path. If you apply elsewhere we shall do all we can in a legitimate way to help you secure another position. Yet this local criticism is sure to become known abroad.

"What reports will investigating committees take back home to their boards when they inquire about you among their friends in this town, when they inquire from their own friends, not from your list of references? What will the man in the street say? And when they ask you, yourself, to show what you have accomplished for our schools these past few years, what will your answer be? Competition for work is rather keen nowadays, and I guess the school business is very much the same as any other."

THERE was another silence and then the Judge answered my unspoken question.

"Do? What should you do? Get out of all these fancy, high-sounding positions that have taken you away from us. Do it as quickly as you can. I hope you won't run away from this mess; I hope you will decide to stay here, that you will work to make good all over again, and make this again a good place for yourself.

"You're hurt and you're angry now. Take a few days and think it over. But," and he spoke more slowly, "You must make a choice."

What could I say to this indictment, unjust and unfair as it then seemed? Not much, I assure you. I tried to carry it off as well as I could; I spoke pleasantly to each member of the group as I went out. But on the way home hotly I told myself that I'd show them! They could take their old contract and do what they doggoned well pleased with it!

"Publicity seeker!"

I took the few days suggested by the Judge and did think it over. But each time I came back to one definite conclusion, I'd make the change and make it immediately.

Three places were open at that time. I decided to use as my main recommendation a list of the positions I had filled or was filling, those important positions I had worked so hard to secure. It seemed safe enough to submit these records; surely my prominence would carry me through. Other boards must be looking for men like me.

"I'd show them!"

I shall gain nothing by relating my experiences in these quests. To sum up matters in a word, I was absolutely unsuccessful.

Why? Because I couldn't fairly answer the question, "Why do you wish to change?"

More money?

"I know your town; your board wouldn't let you go for a matter of three or four hundred dollars, if they really wanted you."

Unsaid, to be sure; but it was not hard to guess the real significance lying behind the polite questions asked.

Large opportunity?

"What constructive work have you accomplished in your own town to show you can handle our situation?"

And so it went. The Judge was right.

BUT it was a remark of one of these board members, a remark not intended for my ears, that finally destroyed completely whatever illusions I still had of my own importance.

"That young fellow is too good to be true. Look at his record! It sounds like a Who's Who in everything except his own job. Nobody can spend all this time on outside things and do his real work right. What we want in this town is a school superintendent who talks about his work and not about himself. We want a man who will stick to his real job, not a publicity hound!"

This was enough for me. Back I went to the Judge, glad enough to sign the contract I'd formerly scorned. Glad indeed to have a chance to make good all over again, uphill and hopeless a task as it seems. Heaven help me, I'm going to tend to my knitting hereafter, at least so long as they will let me.

I've stopped trying to get a place in the sun. I want no more of this. But I am trying to get back my old place in my own school system. And it's a tough job!

Such is the story that came to me yesterday. And with it was the penciled memorandum,

"Here you are and it was a long time in coming. Do what you please with it. Good luck to you."

No, you don't know this man. Among your friends you may know someone who answers his description. Not always is he a schoolman. He may be anyone, from the lawyer neglecting his clients to shine instead as an after-dinner speaker, all the way to a public official junketing through Europe — the idea is the same.

But you can't tell him anything. He wouldn't believe you. Anyway, he is too busy preparing his next speech to have time to listen to you.

TRIBUTE TO AN EDUCATIONAL LEADER

John H. Francis, one time superintendent of the Los Angeles schools, an educational leader, "whose name stands for the highest and best in the educational progress of Los Angeles," was paid a splendid tribute recently. That tribute found expression in a bronze bust which has been placed on the grounds of the Los Angeles Polytechnic High School. Mr. Francis established this school in 1904 and raised it to the highest stage of useful service. His record of achievement upon a broader scale, however, carried its influences over the entire Pacific Coast. Owing to ill health he retired in 1920.

The above illustration shows the bronze bust of John H. Francis and the persons identified with same. The persons shown, left to right, are: Merrill Gage, sculptor; Carl B. Wirsching, President, Polytechnic High School Association; Mrs. John H. Francis, Miss Orpha Klinker, Chairman, Art Committee, Poly Alumni.

Extraneous Factors Affecting Budgetary Practices in Public-School Administration

C. A. DeYoung, Evanston, Ill.

This article deals with one segment of a study in budgetary practices in public-school administration, data for which were gathered during the spring of 1931. Specifically it presents extraneous factors which affect budgetary procedures in cities ranging in population from 5,000 to 100,000 (1930 census).

In making this study, a twofold procedure was used. Twenty school systems were selected from the five states, Illinois, Indiana, Michigan, Ohio, and Wisconsin, for the purpose of interviews by the writer. To give the study scope and breadth, the questionnaire technique was also used. Schoolmen in 841 cities replied, making a return of over 48 per cent of the cities addressed. Schools in every state in the Union sent in at least one reply and some states responded 100 per cent. The highest number of replies received from a single state totaled 82, from Pennsylvania.

In this particular part of the investigation, an attempt is made to find out the number and extent of extraneous factors which affect budget-making in public schools. There are numerous forces that are extrinsic, beyond the control of the average schoolman, and yet so powerful as to upset at least part of the budgetary machinery which has been erected. One may labor and toil with the greatest, most meticulous care in the preparation of an itemized budget, and then the intervention of these unforeseen and unforeseeable factors may overthrow the work of weeks and months. In many instances these fortuitous forces, agencies, and factors make the budgetary task of the school superintendent and his staff extremely onerous.

Ten of these extraneous factors were listed on the questionnaire, and the respondents were asked to check those affecting the preparation of the budget for the current year, and to add any other extrinsic factors. The ten listed were: unemployment in the city, nation-wide depression, school destroyed by fire, failure of crops, important manufacturing interests left the city, important local industry now jeopardized, formation of local tax-investigating bodies, difficult political situations, unfavorable newspaper publicity, and bank failures.

Some Cities Not Affected

Out of the 821 persons responding to the questionnaire, 198 or 24.1 per cent either did not check any of the extraneous factors, or inserted the word "None" to indicate that none of the factors influenced their budgetary practices. A few of the numerous comments found on the questionnaires not checked for extraneous factors are quoted below. Where the name of the state in which the school system is located would not identify the school, the state is indicated just after the comment made by the respondent.

None of the above apply. Our situation is normal at present. — *Illinois.*

We have not been disturbed in any way in making our budgets and tax levies. — *Indiana.*

We are proceeding as if economic conditions were normal. — *California.*

Nothing noted above has affected our budget-making. We've continued in the same general way for the past five years. — *Colorado.*

There are no extraneous factors entering in here. This is one of the wealthiest districts in the United States. — *Wyoming.*

This list of comments showing that extraneous factors are not affecting certain school systems could be multiplied. It serves to indicate that some schoolmen are "fortunate," some are obstinate in adhering to a school program which will probably suffer curtailment, and others show that broader and deeper program of financing and budgeting which Dr. N. L. Engelhardt enunciated at the 1930 Detroit meeting of school superintendents when he said that a child going through the schools today or next year should not be placed under a handicap and receive inferior supplies just because he happens to come along at a time of depression.

There is the financial parallel of holding one's breath. That is what some of the school districts are doing. "Needed expansion delayed," writes a superintendent from Pennsylvania. Many superintendents are apprehensive as to the future: "*So far* we have been able to get a budget in the light of the needs of the school," reports a superintendent from New York. "The depression will probably affect our next budget," is the prophecy of a Colorado schoolman.

There seems to be less dread of the future on the part of schoolmen in these states which have a state equalization program, such as New York. Comments from Delaware indicate a possible solution for some schools: "Our school is financed from a state school fund unaffected by any of the above. Income taxes and corporation fees, and so forth, are all deposited in this fund; it is more than the legislature will use." Some schools are tided over for a year by a surplus, as indicated by the superintendent from Texas: "Our practice is to keep a substantial balance and this has taken care of us during the depression this year."

The Ten Factors Further Analyzed

A few comments made by schoolmen, either on the questionnaires or in interviews, will be discussed in order to give more specificity to each of the factors and to show how they affect school budgets.

Unemployment in the locality was reported by 336 of the 821 schools, or by 41 per cent, thus stamping itself as one of the main extraneous factors which seriously affect budgeting. A superintendent from Michigan writes, "Unemployment in our city affected our budget this year by deferring some work, and holding salaries at the present basis."

The topic of nation-wide depression is consuming so much space in our newspapers that it requires no elaboration here. One of the ramifications of nation-wide depression is revealed in the statement from a Montana town of less than 10,000 population: "This is a railroad town; the payrolls of taxpayers have been affected by poor business on the roads." Thus the aftermath of a national deluge of distress writhes its way into the school systems of many states and counties. National depression is the extrinsic factor reported with the greatest frequency (53.6 per cent).

That schools represent good fire risks or that they are quite adequately insured is deduced from the fact that only nine schools of the total number recorded this as a complicating factor.

The schools in the South are afflicted in a considerable degree by the failure of crops. Twenty-four per cent of the schools replying from the southern states list the failure of crops as influencing budgetary practices. Western schools report 19 per cent. One respondent strikes a further difficulty experienced by these states when he adds, "and a poor market."

Sixty-six schools report that important manufacturing interests left the city. A reference to intangibles is made in one of the interviews in the State of Michigan. One of the automobile manufacturers "pulled out of the city with intangibles, reducing our assessed valuation from $207,000,000 to $134,000,000. This made a loss to the school in one year of $650,000 in revenue." This happened after the budget was prepared and adopted.

The jeopardization of local industries is listed by 119 cities (14.5 per cent). In some instances the superintendent definitely names the industry now endangered. A New Mexican correspondent cites "cotton." Two mention "mining." One of the superintendents interviewed stated that there were several shoe factories in that city, and that they had been heavily hit by depression. The list of anemic or dying industries could be amplied until nearly every form of business would be cataloged.

Influence of the Tax Fighter

The seeds of dissatisfaction with tax burdens, so long embedded in the soil of tax-fighting America, grow into weeds of gigantic height when discontented toilers work the fields. Sixty-three schools report the formation of local tax-investigation bodies as an agency influencing budgeting. One superintendent sent a copy of the bulletin, *The Tax Digest,* which is issued monthly by the California Taxpayers' Association.

A mixed feeling seems to exist in regard to these organizations. Witness the testimonials secured in the study from two sources in adjoining states and in towns not far apart: "The Civic Alliance is taking an active interest in civic affairs. They have an educational committee. This committee sits in at board meetings. They will be present when the budget is adopted. Now we will probably not discuss all the budget in the regular meetings, because of the presence of these men."

The superintendent added that the night for board meetings might be changed in order that the members of the tax investigating group would find it more difficult to attend! A different note is sounded by the other superintendent who says: "We will be a little more cautious. Any items that might arouse resentment will be omitted. However, we are building a $35,000 addition, as it is a good time to build, the building is needed, and the work will give employment. The members of the Taxpayers' Association came out and voted for the bond issue. We have a Taxpayers' Association but it is very favorable to the school."

H. L. Lutz[1] has the following paragraph which sums up the nature and usefulness of taxpayers' associations: "Another agency for the restriction of public expenditures that has come rapidly into prominence in recent years is the taxpayers' association. . . . Some of these organizations will doubtless have an ephemeral existence but those which conceive of their task in the proper terms of first rendering a useful public service and, secondly, of serving their own interest in securing legitimate reductions of the tax burden through the promotion of greater efficiency in governmental matters, may reasonably anticipate a long career of usefulness."

Many schoolmen state that they are using preventive measures to offset a violent boomerang from the taxpayers. They report that they place budget figures before the public through parent-teacher meetings, through Rotary and other noonday clubs, and thus try to build up public confidence in the finances of the school.

Difficult political situations comprises the fourth factor in the point of frequency of mention. It is reported by 72 schools (8.7 per cent),

[1] H. L. Lutz, *Public Finance,* pp. 86, 87.

showing that public schools are not as yet divested of political maneuverings and gerrymandering. Three of the explanatory statements on the questionnaires are:

The general school finance situation in Oklahoma is very deplorable. There is too much politics in hundreds of places.

Personal and individual political situations with certain Board members. — *New Jersey.*

There is here a political situation which tends to cause the board to desire to create and maintain additional positions for political friends. — *Minnesota.*

Hardened politicians, not content with the devastation inflicted upon city governments, realize that the schools, employing many people and receiving and expending millions of dollars, are tempting objects for despoilation.

Unfavorable newspaper publicity is checked by only 2.9 per cent of the schools, indicating that it is a negligible item. In only one interview was much light cast on this situation. This was a suburban town which the metropolitan papers were trying to force into the city district.

Bank Failures Cause Hardships

Of the 57 systems reporting bank failures as a factor detrimental to budgeting, 24 or 42 per cent are located in the north-central group, consisting of only 9 states: Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. The state citing the largest number of failures is Illinois, with six cities.

Cities with a population from 50,000 to 100,000, the largest size in this study, appear to have suffered more from bank failures than the smaller cities. The only school systems in the twenty interview cities affected by bank failures are two in cities over 50,000 population.

In one of these cities, seven of the thirteen banks closed. The other school on the interview list had $553,000 deposited in banks which failed. Of this amount thus far (June, 1931), only $50,000, approximately one tenth, was recovered. Banks held surety bonds for $140,000 of the $553,000. Of this amount, $50,000 was well protected but the other $90,000 was in personal bonds.

This school system tried to secure surety bonds but the bank refused to coöperate. (Right now this school system has more money than the banks will issue surety bonds for). In this emergency, losing so much of its funds through bank failures, the district has resorted to the use of tax-anticipation warrants. The sum of $306,000, however, was for bonds for a new school, so a *new* issue of bonds had been sold the week the interview was made by the writer. If this $306,000 is refunded by the banks, it will be placed in the sinking fund to pay off the new issue. Four and one-half per cent interest is charged on the new bonds. Thus, if the school does not receive this $306,000 within a year, it will lose over $13,770 in interest on the bond issue, to say nothing of the interest lost on the remaining $197,000 and the prospect of losing a goodly share of the principal.

The fact that budgeting includes the safe custody of funds is gradually being recognized by schoolmen and school-board officials. Those who scoffed at the idea of paying for surety bonds from school funds because banks would not furnish them, are now prone to think that insurance of this type is as essential as fire insurance.

Additional Extraneous Factors Affecting Budgetary Practices

On the questionnaire and interview instrument used in this study, space was provided for making comments or listing any extraneous factors in addition to the ten items already discussed. In all, the 821 cities reported 84 additional factors, many of which were duplicates. As this list represents 10 per cent of all the factors, an attempt is made to classify the items.

The methods employed in the assessing of property are listed by several respondents as extraneous factors.

ELEMENTARY-SCHOOL PRINCIPAL

To challenge the confidence of his teachers, the principal must have a comprehensive, definite knowledge of the supervisory technique of the instructional work in his field, he must be well read, he must travel, he must attend educational and civic meetings, he must take his share in community leadership — all of which takes time, energy, study, and salary. It follows that principals should have the time free from teaching and clerical duties in order to give them the opportunity to make all this needed preparation.

The helpful principal is one who stimulates the teacher to use her own initiative and originality, and who tactfully gives all the aid necessary to keep the teacher's work scientific, according to the latest and best standards there are for evaluating school instruction. Because the demands on the principal's time are so varied and numerous, it becomes imperative that the principal plan his time most carefully if the most important of all his duties be not encroached upon — that of supervising instruction. — C. A. Waltz, superintendent of schools, Mansfield, Ohio.

We are handicapped in the preparation of the budget because the valuation of taxable property is not available when the budget is made. — *Kansas.*

Last year the board of review cut the assessed valuation after we had figured our budget, so we had a deficit of $100,000. — *Illinois.*

They do not count automobiles in the assessment now. We are losing a million and a half dollars in assessed valuation. — *Wisconsin.*

We necessarily grope in the dark because of fluctuating valuations, and being forced to levy the limit of taxation rate each year. — *Oklahoma.*

We don't know what the valuation will be, so there is an uncertainty in the preparation of income for our budget. — *Michigan.*

Under a change of law, the assessed valuation of the bank stock was cut more than one half which will have a little effect on our budget for next year. — *Michigan.*

Lowering of the assessed valuation by the State Board of Equalization caused certain retrenchments in an endeavor to keep within the same tax levy. — *Idaho.*

This year the assessor for the county cut all assessed valuation 10 per cent over the whole county. Some claimed this was politics; he claimed it was necessary because of the particularly dry year and the depression. — *California.*

Schoolmen would welcome reforms in the field of assessment of property, plus a spirit of coöperation on the part of the assessors, in order that valuations may be known before the school budget is finally adopted. That advance information is occasionally given by the assessor to the school superintendent is evidenced by the following statement from one of the superintendents interviewed: "This year the assessed valuation will be cut $1,000,000 which is about a 5 per cent cut. Fortunately, the city assessor told us this in advance of the preparation of our budget."

Thirteen schools report that delinquent taxes are seriously influencing their budget practices. This subject forms another part of the investigation but some of the comments of the superintendents are presented here:

Nonpayment of school tax is a real local problem. This necessitates borrowing on short-term or long-term notes or certificates of indebtedness. — *New York.*

Cook county is over a year behind in the collection of taxes. This adds greatly to our interest charges. — *Illinois.*

Failure to pay taxes affects our budget, with the maximum millage allowed by law. — *Florida.*

The budget for next year must be cut because of too many delinquent taxes. — *Wisconsin.*

These general statements take on specificity in figures which the writer gathered in an interview in a city in Michigan. These figures show the per cent of delinquent school taxes, and the per cent of taxes received by March 30 of the following years:

Year	*Per Cent Tax Received*	*Per Cent Tax Delinquent*
1928–29	74	26
1929–30	70	30
1930–31	64	36

One sees here a striking progression toward increase in the per cent of delinquent taxes.

New Legislation Bothers Schools

Legislation of a kind distasteful to schoolmen and foreign to the interest of school budgeting is listed by eight schools as an extraneous factor, eluding control. References to legislation are found in these quotations:

The instability of state legislatures is a factor to contend with. An attempt was made this year (1931) in the legislature to reduce the amount of Turner Fund money for the school districts in this county by $34,000. — *Michigan.*

Tendency on the part of the state to reduce aid without notification. — *Minnesota.*

New tax laws adopted by state legislature. — *Kansas.*

Limited by state laws. State law keeps our budget not above the present budget for the next two years. — *Indiana.*

Proposed legislation in the present session (1931) of legislature providing for review of a school budget by a committee of nine when the request comes through a petition of 1 per cent of the voters. The committee may revise the budget downward. — *California.*

Under the law, in order to help school districts that lose funds through bank failures, the state confiscates the 2½ per cent interest received on daily balances. — *Iowa.*

It is obvious that laws cannot be made to suit all, but it is patent also that much state legislation affecting school budgets is hastily prepared and promptly passed. The application of the Iowa law mentioned above evidently means that school districts which are cautious in the selection of banks, and demand surety bonds, have to pay for those less cautious or less fortunate.

Six of the school systems mentioned the city government as being responsible for some of the extrinsic forces disturbing budget practices. Statements made by school superintendents and business managers are as follows:

Other city projects, such as streets, parks, health, etc., affect the school budget. — *Wisconsin.*

High local-government tax rate. — *New Jersey.*

Change in the city policy; until three years ago the school never had to pay a water bill for the use of municipal water. — *Michigan.*

Due to depression, the Board of Finance of this place cut the budget for 1931–32 the sum of $35,655. — *Massachusetts.*

Many educational writings have dealt in great length with the advantage of avoiding legal cuts by having school districts fiscally independent of the city régime. It would appear, however, that in a period of depression, "legal cuts" are not as numerous as semivoluntary reductions brought about through the aid and abetment of superintendents and school-board members. In some cases these cuts are intended primarily for "window-dressing" purposes.

Demerits of Some School Organization

Schoolmen not only see evils in the city administration, but also recognize the demerits of their own school-district organization. The system of separate high-school and elementary districts, as found frequently in California and Illinois, with two separate school boards was criticised by many of the schoolmen working in the communities so organized. Undoubtedly in many instances where the dual system exists, the prime motive has often been that of securing more funds, thus subjecting the taxpayers to another "layer of taxation."

Another extrinsic element in school-district organization that militates against the intrinsic control of the budget and adequate preparation of the budget is the fact that in a state, like Illinois, the treasurer of the school district is generally not a school-district official. He does not attend board meetings, and frequently does not coöperate in the building up of a budget.

Comments such as the following are made relative to tax limitations as extrinsic factors:

Taxing limitations make adequate financing impossible.

Too low tax rate to produce sufficient funds for all city purposes; schools cut proportionately.

On the topic of tax-rate limitations, H. L. Lutz[2] makes the following comment: Tax-rate and debt limitations are purely mechanical devices and therefore are likely to be rather futile instruments for dealing with a problem that involves the human element. Even if they were successful, they would not alone insure genuine governmental economy. They smack of parsimony rather than of true economy in expenditures."

Next, in the rank of frequency, comes tradition as a source affecting adversely the school budgetary practices. The comments are self-explanatory:

We are just getting a budget system under way. It has taken five years to break down the opposition. We hope to have an adequate accounting system next year. — *Illinois.*

Natural conservatism with fear emphasizes difficulties.

I regret very much that no budget is prepared, transmitted to the Board, or discussed by it. Traditions are hard to break here, after having been established and maintained by an ever-recurring election of certain board members. However much I feel the need of more progressive steps in accounting, I do not feel like "butting in" where angels fear to tread.

Information relative to the dates set for the fiscal school year forms a separate part of the investigation, but inasmuch as several of the superintendents referred to it as an extraneous factor, it may be mentioned here. The fiscal year for the school frequently does not coincide with the fiscal year for the state departments, necessitating the preparation of two budgets. Fiscal dates frequently differ within a city.

Budgeting Indispensable Safeguard

Three schools criticized the technique used in the distribution of school funds, other than direct taxes. Two of the comments are:

Unfair methods of allotting taxes paid by public utilities under the present Idaho law.

Complicated method of receiving certain school funds. They pass through the hands of the county board which has no fixed policy or basis of distribution.

The following excerpts represent other miscellaneous factors which serve as interlopers, complicating practices in public-school budgeting:

The fluctuating enrollment from parochial schools presents an uncertain factor. —*Wisconsin.*

Very rapid growth in population. —*Rhode Island.*

Unexpected emergencies. Heating plant with which we had contract went into bankruptcy. We had to take it over and operate it. — *Indiana.*

Business depression resulted in a low turnover of teachers, resulting in a higher budget — fewer teachers starting at the lower levels as new teachers. — *Maine.*

As a conclusion to this list we add extracts from a personal letter received from one of the respondents to the questionnaire: "Budget procedure in this town for the school year 1930–31 may be of special interest because it was just discovered that the town was in debt far beyond expectation, that the town treasurer had kept very inadequate accounts and that several thousand dollars could not be accounted for. For political purposes it seemed best to cast doubt upon the school department and a group of militant taxpayers demanded an investigation.

"Budgets of previous years, and the inclosed budget for 1930–31 were presented for their inspection and study. They were disposed to cut the total, but we demanded that they name the particular item that would stand reduction. After a few weeks of meditation they quit, and since approved the construction of an addition to the high-school building in order that tuition pupils might be retained.

"Certainly budget procedure in great detail over a period of years was a life-saver for us."

Extraneous Factors Make Budgeting Difficult but Indispensable

The accumulative impact of these fortuitous factors is such as to make the preparation, adoption, and administration of the public school budget an extremely difficult task.

Superintendents of schools, brought up in the theory of school finance, often find the practical situations hard to surmount. It follows that one of the points toward which the study of public-school budgeting must be directed is that of controlling, eliminating, or redirecting these extrinsicalities. At present, techniques and research avail little, since the hazards are so great and numerous. But the greater the obstacles to efficient budgeting, the greater the need for it.

The essence of the significance of these numerous extraneous factors and their relationship to public-school budgeting is succinctly stated by Mr. J. W. Foreman, superintendent of schools at Goshen, Indiana: "Some of these factors listed are to be taken into consideration, but they make budgeting more necessary. Successful budgeting is a decided advantage when such factors enter in." In other words, extraneous factors make budgeting difficult, but they also render it *indispensable.*

[2]H. L. Lutz, *Public Finance*, p. 85.

HUMAN RELATIONSHIP IN SCHOOL LIFE

Only as we realize that it is with human relationship that we are constantly concerned, and that in the long run the outcomes of this relationship are the only things which count, shall we be able to share together, children, teachers, principals, directors and superintendents, boards of education and community, in making the schools of this city thoroughly great and worthy of the responsibility placed upon them in the touching of life and the molding of society.

That all of us may sense more clearly than ever before the high character of the task we are sharing together, the large possibility of its outcomes and the fundamental significance of all that it means now and even more will mean in the days to come, shall we be able to make these schools what they should be and justify our committing ourselves to the obligations we assume as workers in them. — Edward D. Roberts, Superintendent of Schools, Cincinnati, Ohio.

Is the Small Elementary School Being Neglected For Its High School?

C. S. Hetrick, Elm Creek, Nebraska

An affirmative answer to the question in the caption of this paper seems warranted on the basis of a five-year study of current-expense costs in small Nebraska schools recently completed. All Nebraska schools employing from 11 to 30 teachers were included in the study which covered the years 1924–1929. To make comparisons possible, the expenses were reduced to the common-cost unit — the cost per pupil in average daily attendance.

A total of 127 schools was studied, making a total of 635 cases. The unit costs, when found, were placed in frequency tables, and the central tendency chosen was the median.

Costs Increased

The study revealed that the trends in both high-school and elementary-school costs were upward during the period. In 1924–25, it cost the average small Nebraska high school $108.70 per pupil in average daily attendance for current expenses, while in 1928–29, this same average high school spent $119.85 for each pupil. The total increase was, therefore, $11.15 per pupil, or an average increase of $2.23 per year.

Turning to the costs in elementary schools, this study found an average cost of $59.53 per pupil in 1924–25, while in 1928–29, the cost had increased to $62.83. During the five years the average expense for an elementary-school pupil had increased $3.30, or 66 cents per year.

The above data show that the high-school costs made an increase in five years of over 10 per cent, while the elementary school increased but 5 per cent.

By the use of the probability curve, the "critical ratio" between the two groups of figures may be determined. This critical ratio is the ratio of the difference between two medians to the probable error of that difference. When this ratio is above 3, the difference is large enough to be significant. For high-school costs, the critical ratio was found to be 4.17, while it was only 2.07 for elementary-school costs. Thus, a significant upward movement in high-school costs, with not such a decided movement in the elementary schools, was revealed.

Is the Elementary School Neglected?

In Nebraska, the high school has shown a significant increase in the amount of money raised for its benefit in recent years. This should represent, if the money has been properly expended, a marked increase in efficiency of instruction.

No such significant increase in expenditures is found for the elementary school. If an increase in expenditures is one index to increased efficiency, the elementary school cannot claim the same increased efficiency that the high school can.

The greater emphasis on the high school may be partly due to the fact that nonresident tuition of $108 is received for each pupil living outside the school district which maintains a high school. School authorities seem to believe that expanding the curriculum costs money, but this expansion may help to interest the nonresident pupil and may attract and hold him. To produce a like holding power, greater expenditures may be required in the high school than in the elementary school where nearly all the pupils are below the age limit when they may legally leave school.

Should Elementary Schools Share Equally?

The foregoing and many other reasons may have made legitimate the greater increase in expenditures per pupil in the high school than in the elementary school. But these figures should lead to the question: "If education is improved through increased expenditures, should the elementary school not have an equal chance of improvement with the high school?"

Looking at the cost question from another angle, as high-school costs are nearly two times the costs in elementary schools, should not the increases in costs be in proportion to allow for equal increases in effectiveness? At present, this does not seem to be the case. While high-school costs are less than two times those of the elementary school, still the ratio of increase for the five years has been over 3 to 1.

(Concluded on Page 87)

MAIN FACADE, LINCOLN HIGH SCHOOL, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois

Lincoln High School and Field House, Wisconsin Rapids, Wisconsin

Frank A. Childs, Childs & Smith, Architects, Chicago

Present-day educational programs stress recreation as an essential element. School buildings are no longer erected consisting of a group of recitation rooms. The consolidated rural school and the city high and elementary schools are quite as much concerned with the gymnasium and the auditorium, with the shops and laboratories, with the library and music rooms, as they are with the traditional classroom facilities.

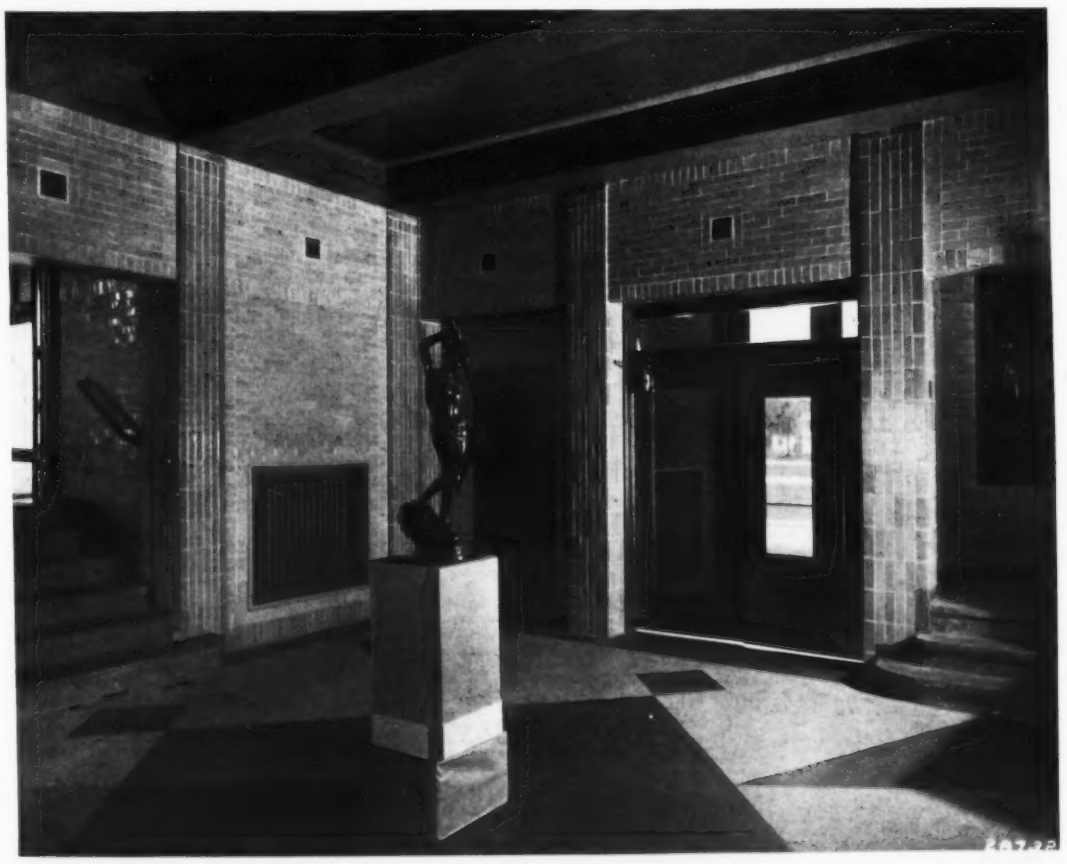
The carefully developed modern school plant considers the community use of the building after school hours and during vacation periods. No modifications of the plan need be made, which will render the school facilities less available during the regular school session, but a building may be arranged to fulfill all school requirements and to adequately serve the community in many and varied ways. This is only possible when the recreational needs of the larger groups are considered in the initial plan studies.

Arrangement in the form of a large club or peoples' forum, with central control and supervision of such rooms as the auditorium, gymnasium, swimming pool, library, cafeteria, science and art laboratories, industrial and household arts, would greatly increase the prestige of the school as a community center and by multiple use of these rooms, would justify the mounting cost of school plants today.

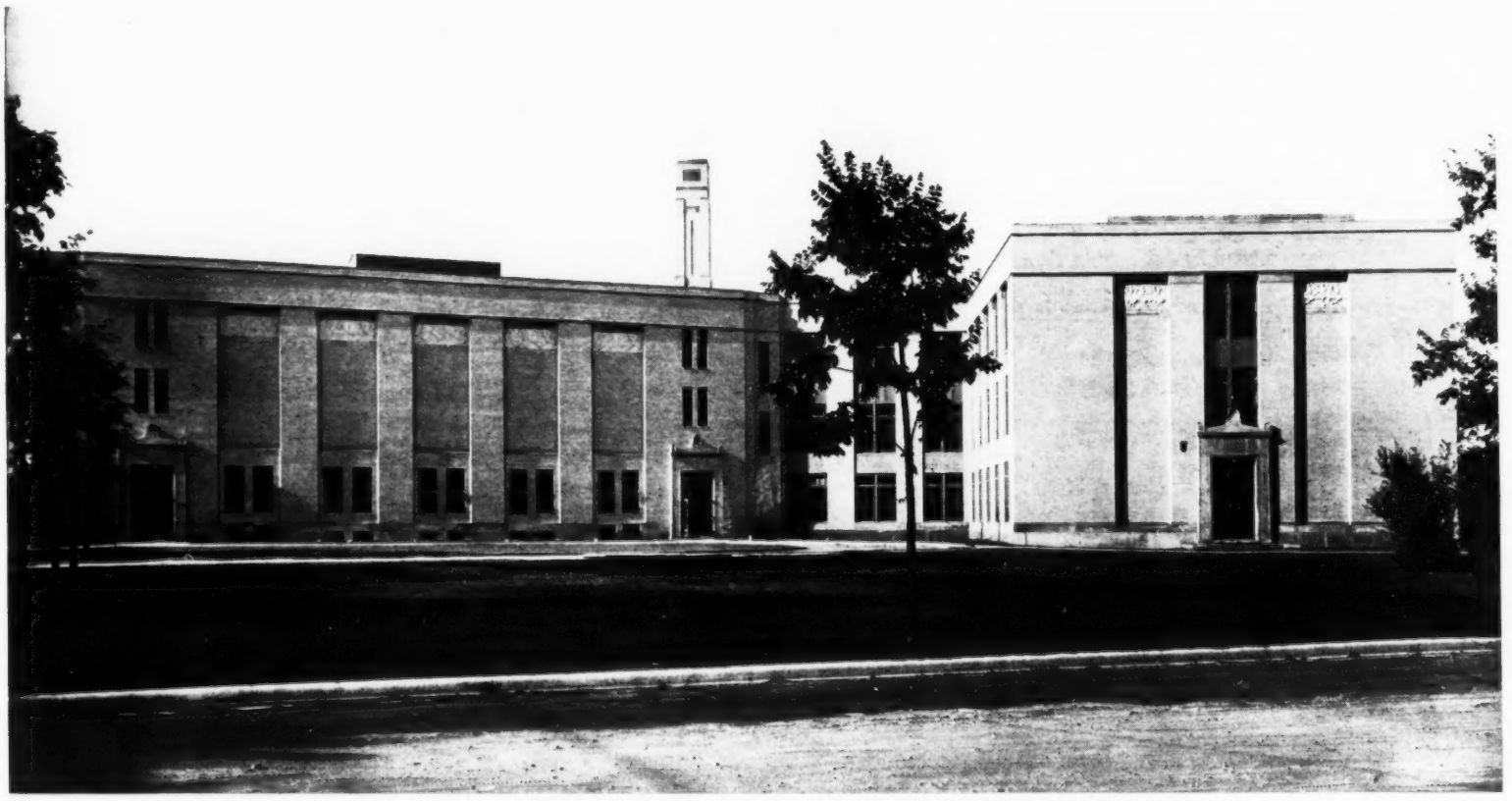
Could every plant in our large city systems conduct a strong social program in a building of this kind, it would go far in the regeneration of the community as well as eliminate costly duplication in this field by *philanthropic* agencies.

In most of our cities, only one sixth to one fifth of the population is regularly enrolled in school; the other five sixths should continue to learn. If proper leadership is provided and the buildings are made sufficiently attractive, increasing numbers of young men and young women will want to come into the school in order to continue their education.

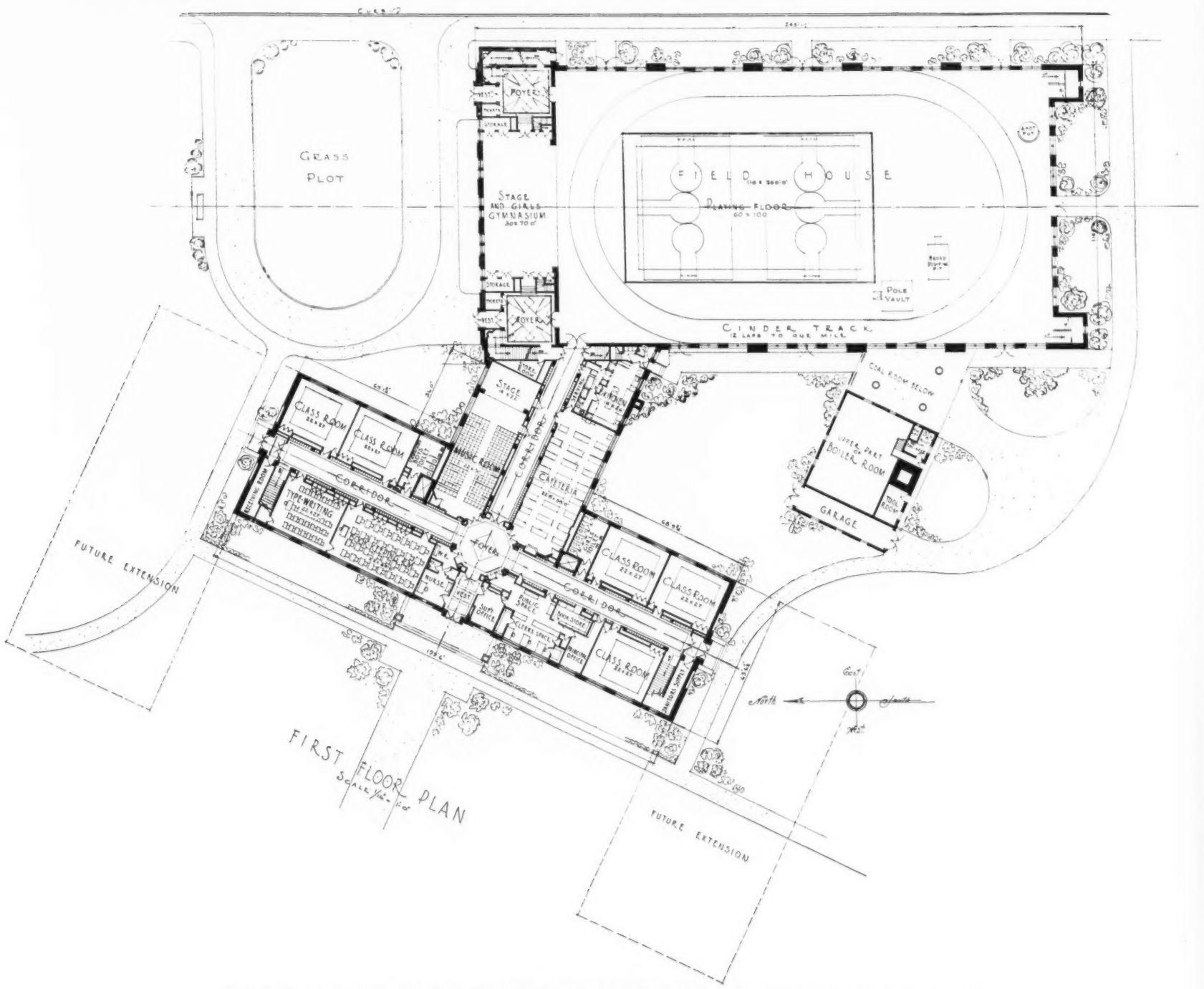
There is nothing that may more significantly be called recreation than some line of study which widens an adult's horizon and which interests him to undertake creative activity. It is well, therefore, to include in this peoples' forum



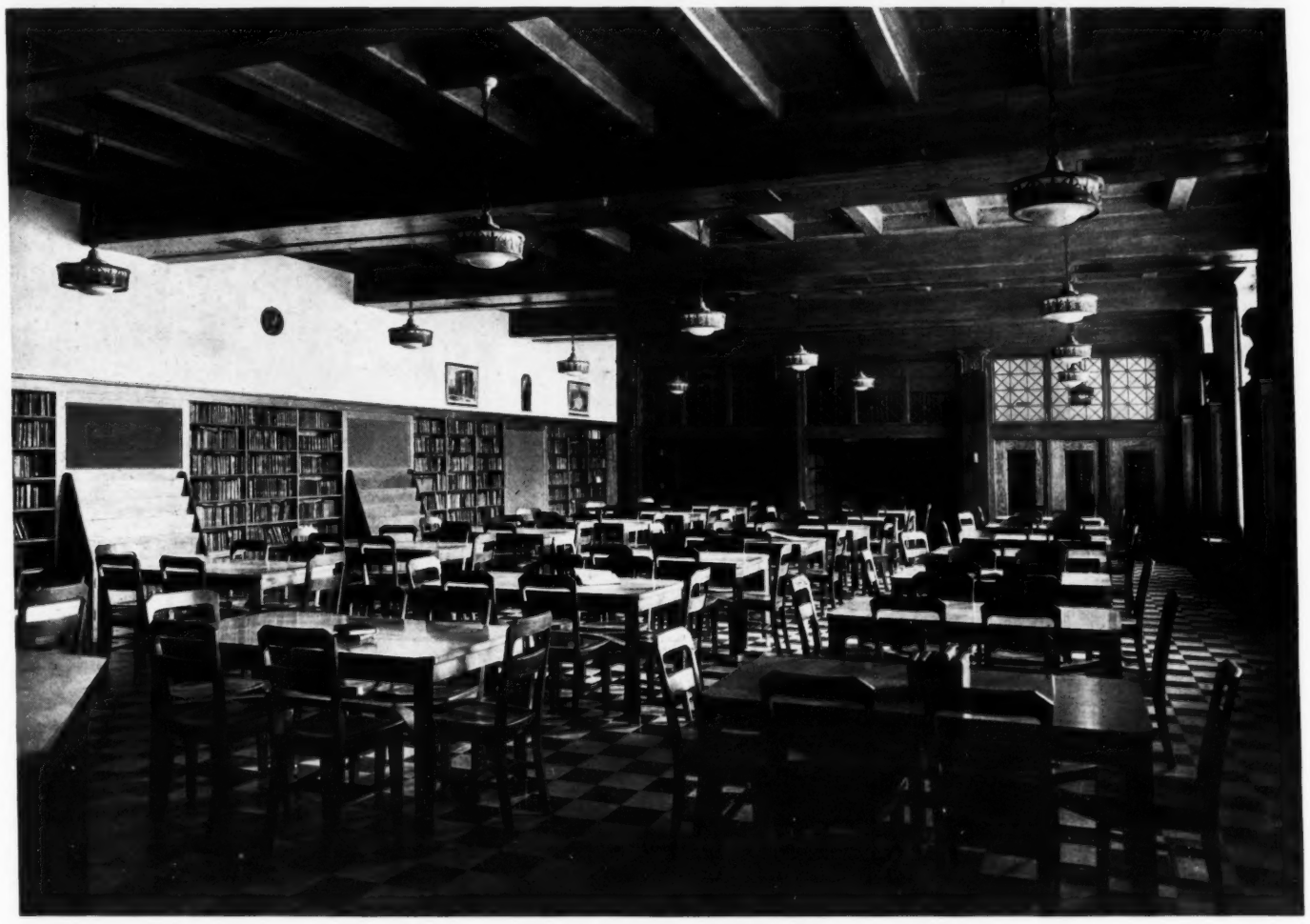
FOYER OF FIELD HOUSE, LINCOLN HIGH SCHOOL, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois



MAIN ENTRANCE TO GYMNASIUM, LINCOLN HIGH SCHOOL, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois



FIRST FLOOR AND PLOT PLAN OF THE LINCOLN HIGH SCHOOL AND FIELD HOUSE, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois



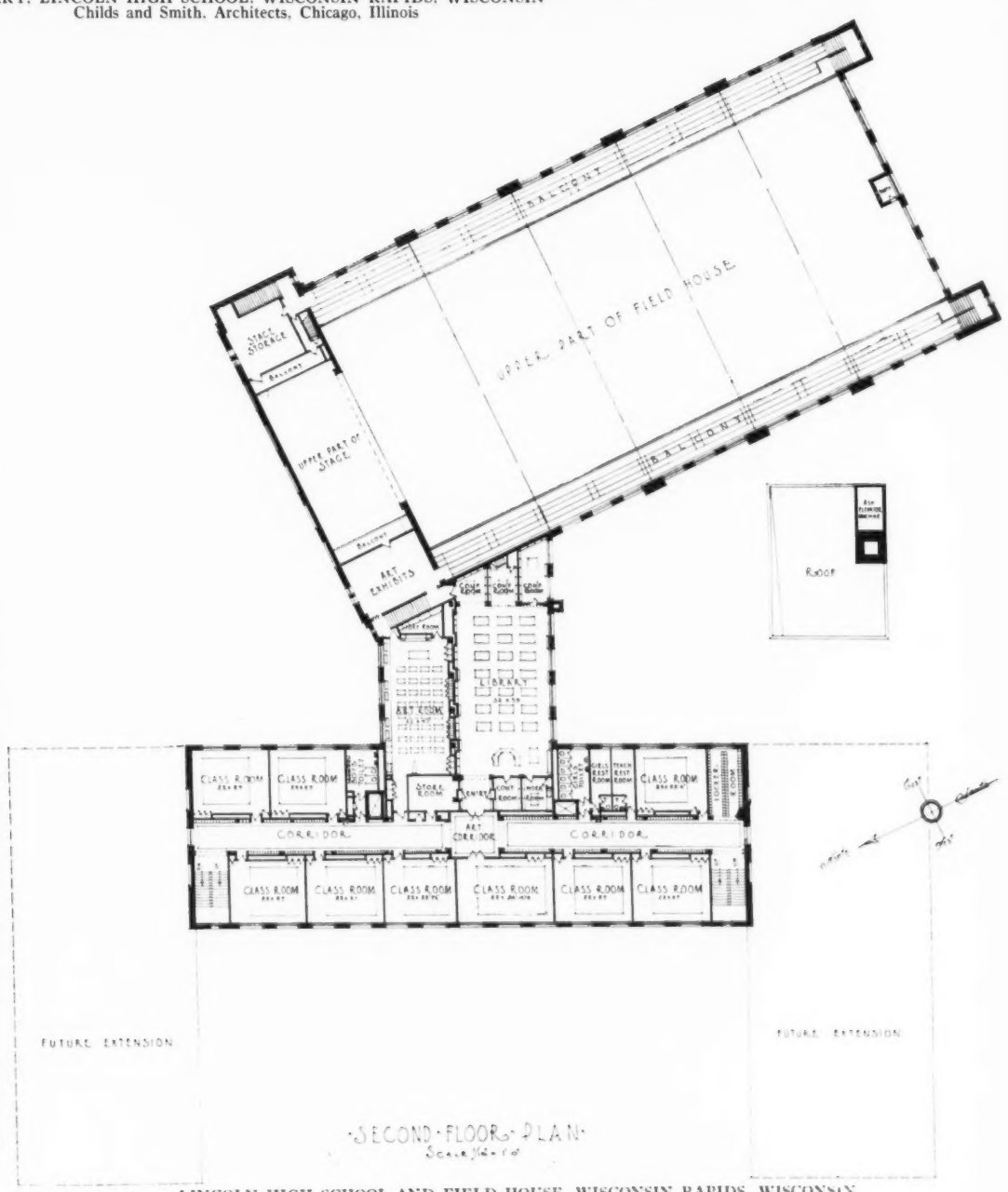
LIBRARY, LINCOLN HIGH SCHOOL, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois

or club those laboratories which have a special appeal to the adult.

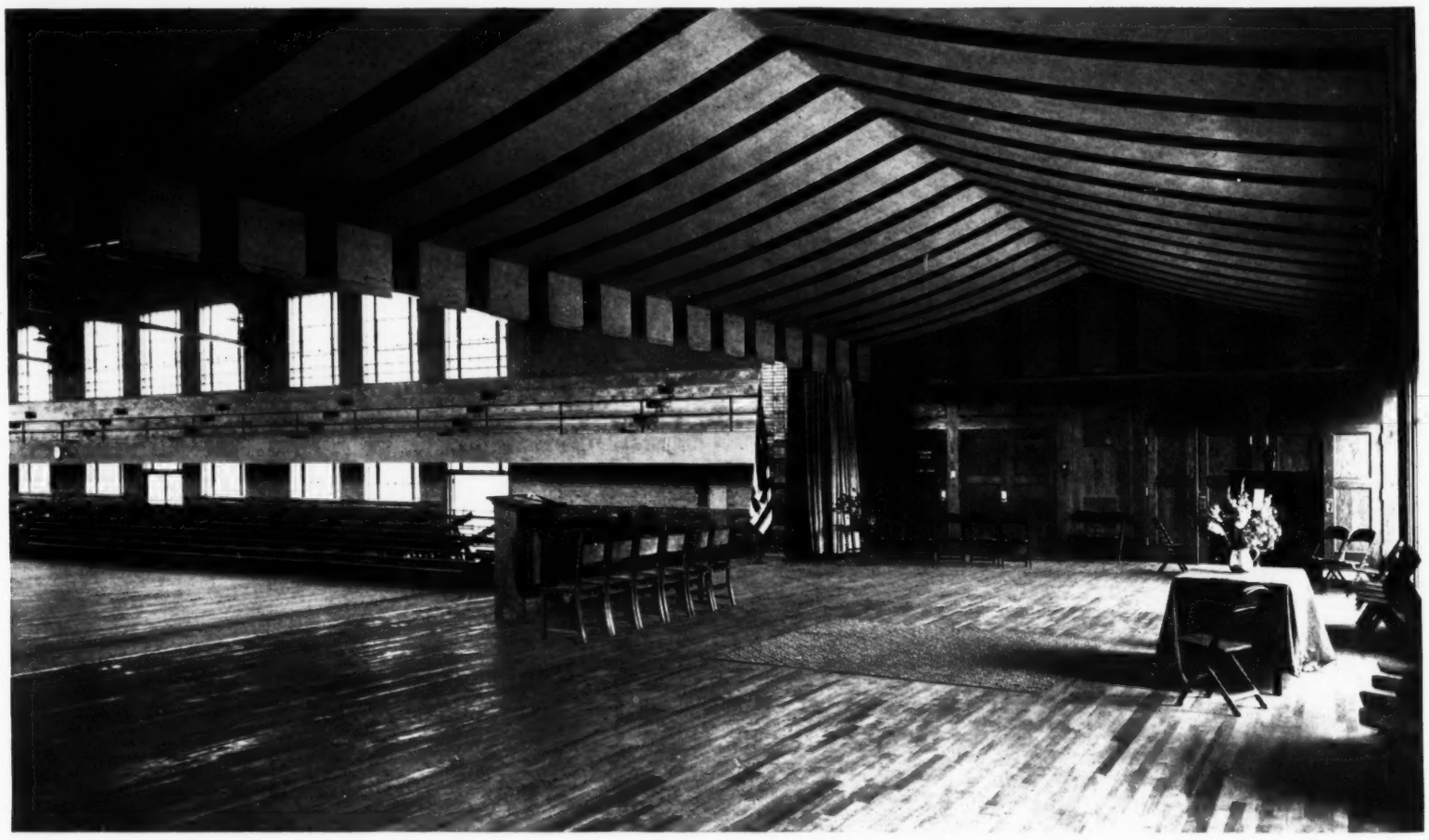
Childs and Smith, the architects of the Lincoln High School at Wisconsin Rapids, Wisconsin, have studied a plan arrangement to care, first, for the needs of the school with future development, and, second, for the needs of this larger group of adults.

A centrally located site adjacent to a large municipal field suggested a field house 110 ft. wide by 200 ft. long to take the place of the usual standard gymnasium, thus giving ample space for the maximum number of student activities and civic entertainments through the winter. A sizable stage 30 by 70 feet provides minor gymnasium facilities for the girls, pageants, plays, student dances, large choruses, and instrumental concerts, and music festivals. Per-

MAIN ENTRANCE, LINCOLN HIGH SCHOOL, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois



LINCOLN HIGH SCHOOL AND FIELD HOUSE, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois



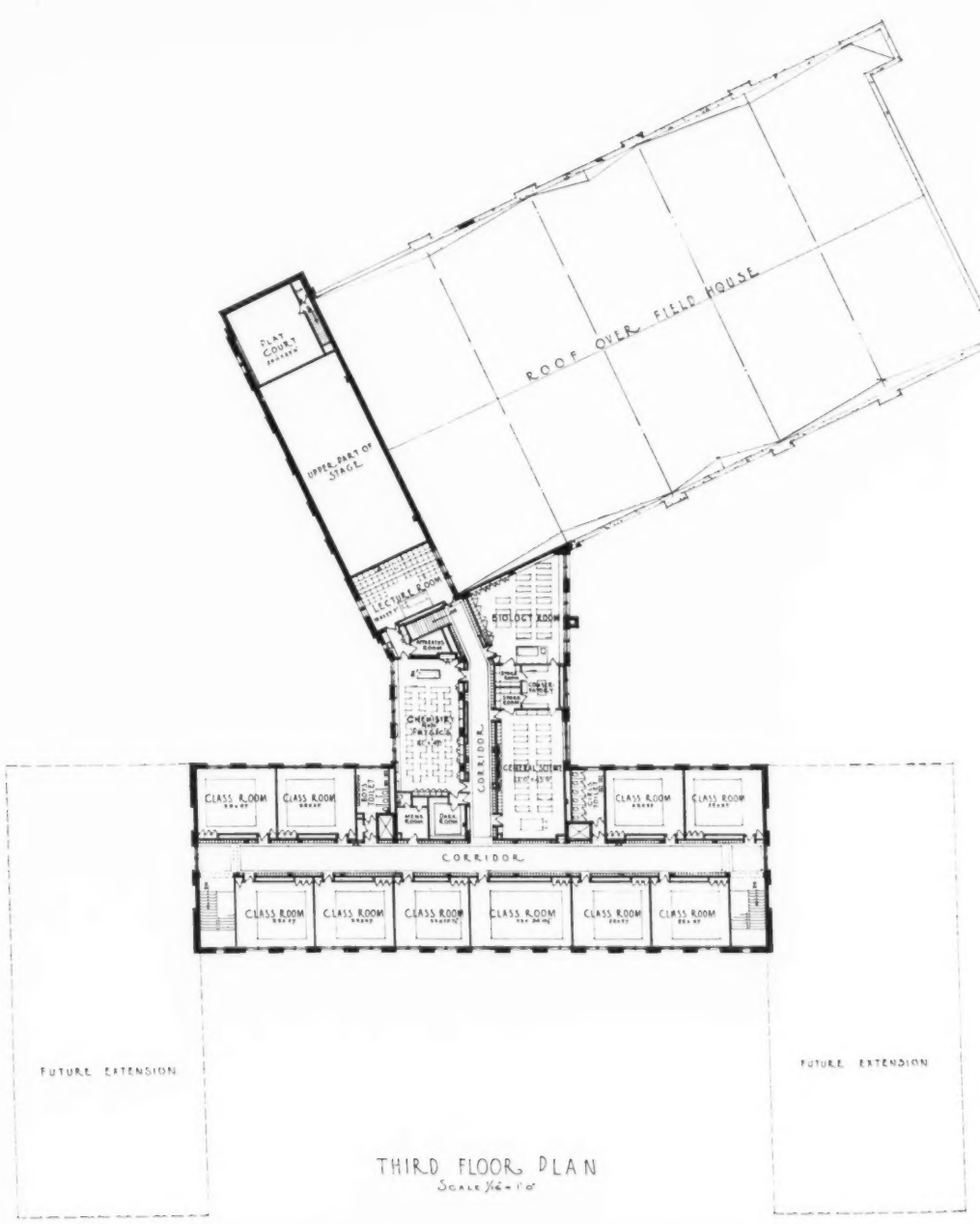
FIELD HOUSE STAGE, LINCOLN HIGH SCHOOL, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois

manent bleachers accommodate 1,200 spectators, while temporary bleachers accommodate 4,000, for the large basketball games so popular in this region. Should a Kreisler concert be contemplated, 7,000 can be accommodated by the use of folding chairs. Through a system of heavy curtains, the house can be reduced to one third or two thirds the size for smaller concerts and entertainments.

Besides the 60 by 100 ft. basketball floor, a 12-lap cinder track, a 50-yard straightaway, broad jump, pole vault, shot put, and hurdles complete the activities of this department. Beneath the stage are two well-lighted team rooms and a large storage space for bleachers, chairs, and scenery. Both team rooms have separate entrances from the municipal field and have a stairway direct to the stage for use as dressing rooms when plays or pageants are given.

Adjacent to the stage is a music room seating 200 persons in opera chairs on an inclined floor.

SUPERINTENDENT'S OFFICE, LINCOLN HIGH SCHOOL, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois



LINCOLN SCHOOL AND FIELD HOUSE, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois

Music and drama preparation and study are given here with finished rehearsals on the big stage where a dimmer cabinet, 25 sets of lines, asbestos fire curtain, velour draw curtains and valances, and three close-in curtains with cyclorama make it possible to give any kind of a performance, from a band concert to a piano recital or a small drama production. An ingenious device in the form of a large colored canvas awning which can be spread out to form a tent roof conceals all the disagreeable barnlike effect of the upper stage loft, when small receptions and student dances are given. This canvas awning is operated the same as scenery on sets of lines and can be pulled up out of the way when not in use.

Strong colors in deep blue and antique gold give an almost oriental effect to the music room. Upholstered chairs, blue jasper linoleum, and acoustically treated ceiling produce excellent tone qualities here. Euterpe, goddess of lyric song, forms a decorative feature at the rear of the room. Orange velour draw curtains and black cyclorama for the stage give an excellent background for small stage productions.

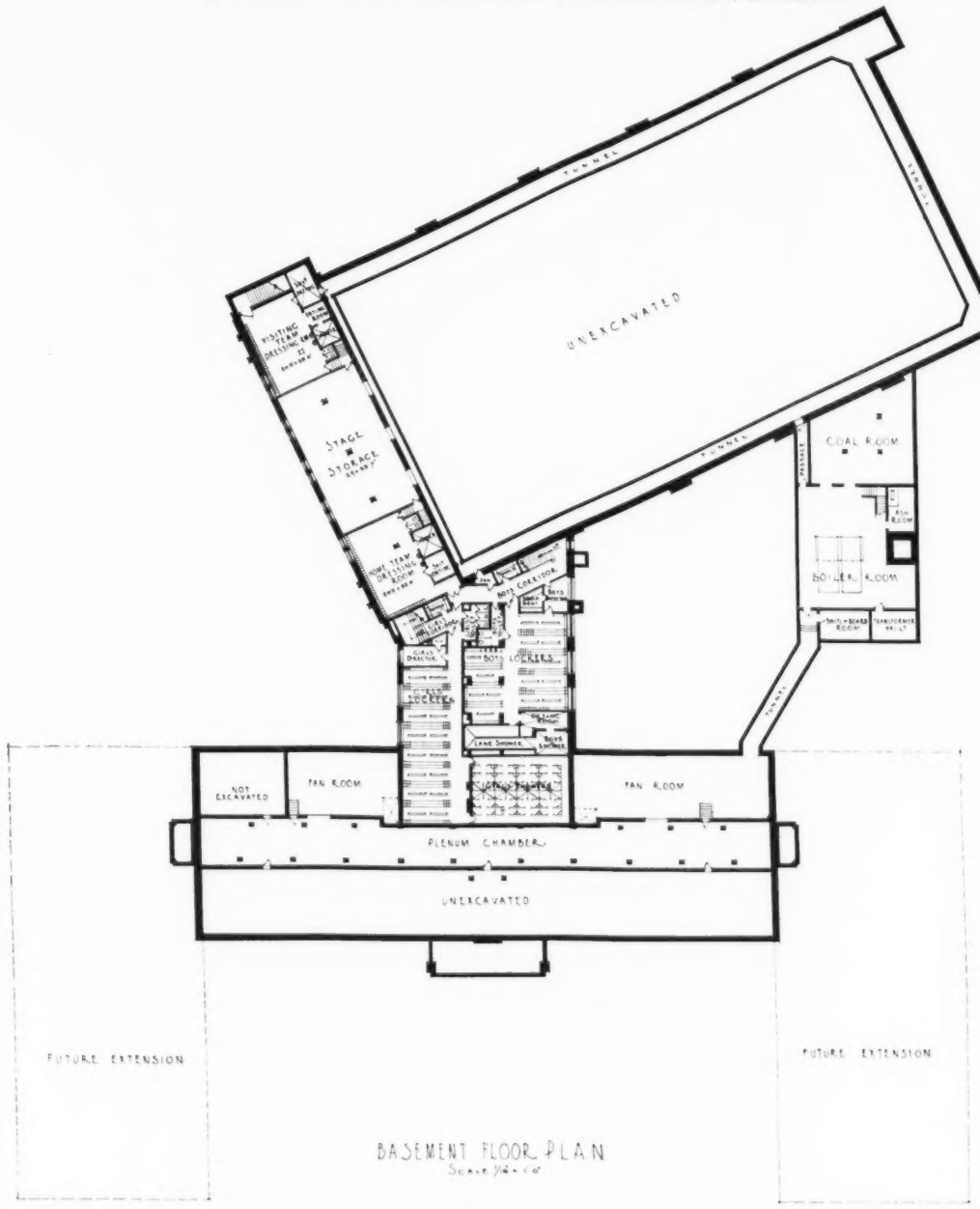
Across the corridor from the music room and convenient for the serving of refreshments to larger groups who use the field house, is the lunchroom, which is treated very much in the modern style in vivid rainbow colors, glazed-brick wainscot in blue and buff, and a decorative wall fountain containing fragments of priceless antique Persian tiles. Color reproductions of the Moderns, such as Monet, Cezanne, Signac, van Gogh, and others give a refreshing feeling to this room. The furniture is bright-yellow maple, specially made from the architect's designs. A fully equipped kitchen and steam table is entirely shut off from this room, enabling the use of the cafeteria as a study hall, a clubroom, or for additional music preparation, as desired. The dish counter and washer are so arranged that the students may deposit their trays directly, thus avoiding much extra service in removing these trays in baskets or busses.

The library, centrally located on the intermediate floor, is most conveniently placed to serve the school, and is also directly accessible from the foyer to the field house, for use at night. The reading room, 33 by 59 ft. in size, accommodates 126 at tables and is supplemented by two conference rooms and two reading alcoves supplying 26 additional seats. Shelves accommodate 12,000 volumes. The librarian has a large charging desk and workroom, with inclosed shelves, work counter, and dumb-waiter to the first and third floor, for easy conveyance. A commodious mezzanine has shelving for 2,500 volumes, chiefly bound magazines. The bookcases, periodical racks, display cupboards, and furniture are all specially designed and built in. Bronze-colored busts, old engravings, and Piranesi prints, with occasional reproductions in color, decorate the walls and lend a classical feeling to this room.

General science, biology, chemistry, and physics are all located on the third floor in a group by themselves, one lecture-demonstration room being provided for all. These laboratories are well equipped with storage and display cases built in, individual student tray cases under lock and key, dark room, apparatus room, private laboratory, greenhouse, and storerooms. The plan shows this group as well as the artroom on the floor below easily accessible from the school and available from a separate and distinct entrance for night work by the adult group.

It has been the endeavor to make the faculty restrooms bright and cheerful, with comfortable furniture in gay colors. An unusual feature of the main school entrance vestibule and lobby is the Assyrian and Grecian relief work in plaster above the glazed brick wainscot. These are authentic reproductions of ancient historic subjects and are especially fitting for school purposes.

MUSIC ROOM, LINCOLN HIGH SCHOOL, WISCONSIN RAPIDS, WISCONSIN



LINCOLN HIGH SCHOOL AND FIELD HOUSE, WISCONSIN RAPIDS, WISCONSIN
Childs and Smith, Architects, Chicago, Illinois

Twenty-four classrooms, a bookkeeping and typewriting room, and an administration and health suite complete this building, of which the present enrollment is close to 1,200.

Heating and Ventilating

The academic building is heated by low-pressure steam generated in a separate building by

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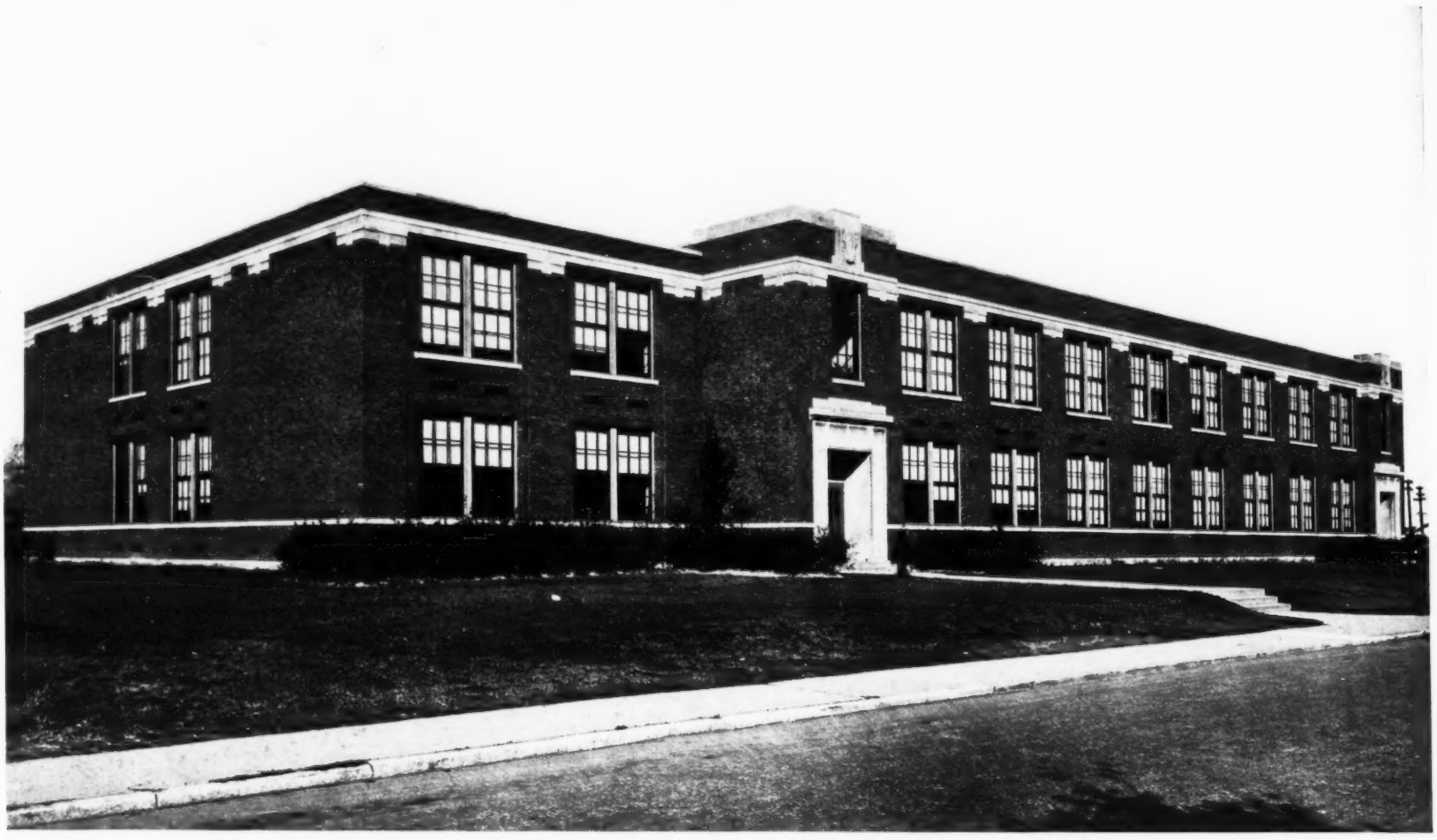
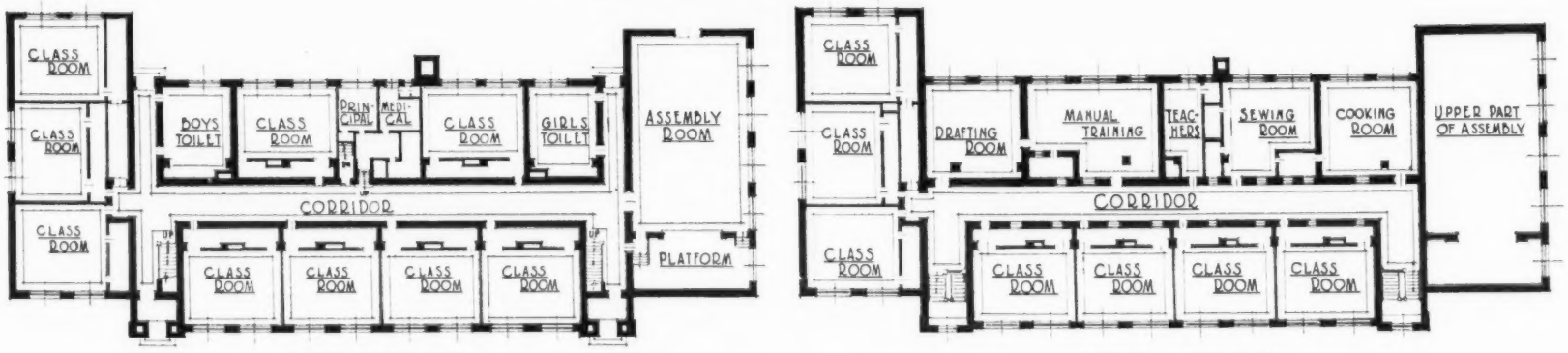


GRADE SCHOOL NUMBER SIXTY-TWO, INDIANAPOLIS, INDIANA
McGuire and Shook, Architects, Indianapolis, Indiana



FIRST FLOOR PLAN SECOND FLOOR PLAN
FLOOR PLANS OF GRADE SCHOOL NUMBER SIXTY-TWO, INDIANAPOLIS, INDIANA
McGuire and Shook, Architects, Indianapolis, Indiana

TWO INDIANAPOLIS SCHOOLS

Individuals who have watched the development of American school architecture during the past generation have noted that the new elementary-school buildings of the larger American cities are exhibiting more distinctive features of plan and design from year to year. However strong the elements of personal interpretation which the architects introduce into exteriors and floor layouts, the ideals, the organization, and the procedures of the several school systems seem to place a distinguishing mark on the schools, which enable the informed visitor to know immediately when he is entering a New York school, or a Chicago school, or the typical new schoolhouses of a dozen other large cities.

The accompanying illustrations are typical of new school buildings erected in Indianapolis. In numerous points of plan and exterior, they reflect the best practice of the city schools. One may disagree with the wisdom of some features growing out of local ideas of school management — the cloakrooms, for example — but the buildings are worthy of commendation as logically developed, efficient, and economical units in which the architects have achieved a fine harmony of high quality of construction, dignified design, and low first cost.

A Neighborhood Community School

The accompanying floor plans and photographs illustrate Grade School No. 62, Indianapolis, designed to serve a rapidly growing community. The first unit of the building was erected in 1923, at a cost of approximately $165,000, and included ten classrooms, an assembly room, manual-training and household-arts division, the administrative groups, and toilet facilities. The left wing of six classrooms, was built in 1926. The arrangement is such that additional units may later be provided with relevant services. There is no basement, except that required for the boiler plant and mechanical devices.

The assembly room has been placed at the street intersection, so that it is available not only for day use by the school, but for night use by the community which it serves. The assembly room is arranged also for physical-education purposes. The structure is generally of Class A, fireproof, reinforced-concrete construction, using dark-red brick, with Indiana-limestone trim.

The cloakroom arrangement between the classrooms and the corridors is based on special class-management ideas which have been employed in this building.

Low maintenance costs and ease of continuing effective sanitary measures have been well achieved in this building by the employment of glazed-brick wainscots 4 ft. 6 in. high. Terrazzo floors have been placed in the corridors, stairways, toilet and service divisions. Maple floors, especially treated, have been used throughout the remainder of the rooms and areas.

The building is heated by means of a vacuum-steam system, thermostatically controlled.

The building was erected from plans prepared by Messrs. McGuire & Shook, architects, of Indianapolis.

School No. 80

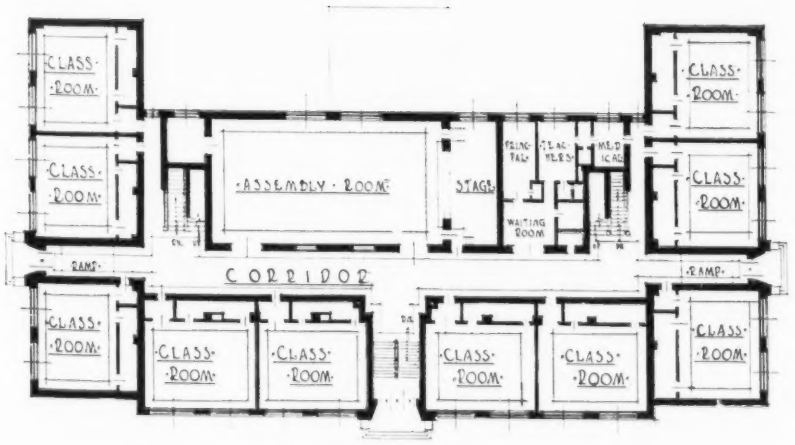
The photographs, and the outline floor plans accompanying, illustrate Grade School No. 80, erected in 1928 in one of the expanding building areas of the city of Indianapolis.

The building is designed on the unit plan and lends itself readily to expansion as the enlarged enrollment demands additional classrooms. The exterior follows modernistic lines, with walls of buff, rough-texture brick, laid in natural mortar and Indiana-limestone trim. The structure is Class A reinforced-concrete construction. The corridors throughout have glazed-brick wainscots and terrazzo floors and this type of finish has been used also in the toilet rooms. The manual-training and household-arts departments have concrete floors; and the classrooms, assembly hall, and all other rooms have maple floors.

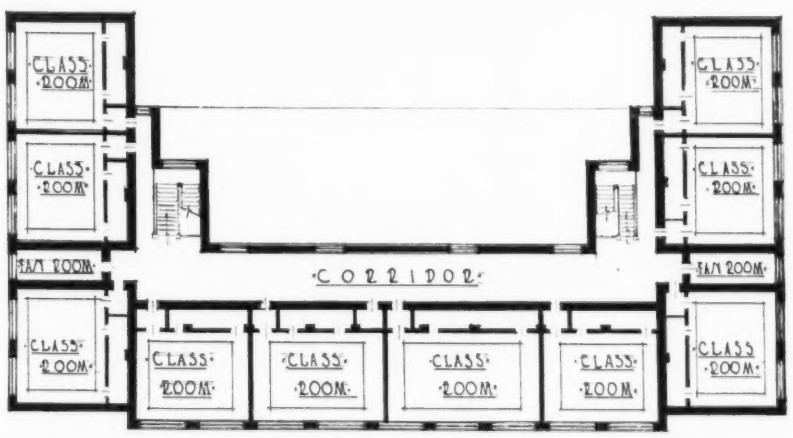
The school is accessible from three streets, which dictated the corridor layout and the arrangement of entrances and exits. The side entrances which are more commonly used by the pupils than the front entrance, have ramps leading up to the level of the first-floor corridor.

It was deemed advisable to limit the basement to the area roughly defined by the location

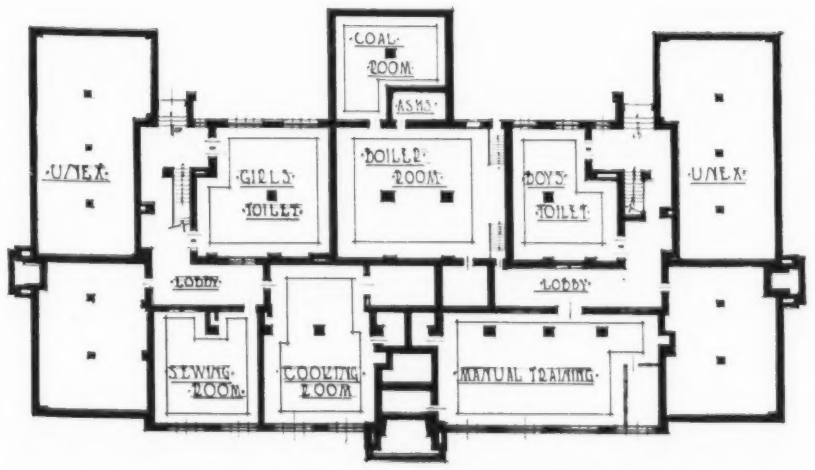
SCHOOL NUMBER EIGHTY, INDIANAPOLIS, INDIANA
McGuire and Shook, Architects, Indianapolis, Indiana



FIRST FLOOR PLAN



SECOND FLOOR PLAN



GROUND FLOOR PLAN

FLOOR PLANS OF SCHOOL NUMBER EIGHTY, INDIANAPOLIS, INDIANA
McGuire and Shook, Architects, Indianapolis, Indiana

of the two main stairways. This makes it possible to divide the basement almost equally for boys and girls, and to place the boiler room between the two divisions. The playground at the rear of the building is somewhat lower than the land at the front and sides of the building, so that only three steps are necessary to reach the basement level where the toilets are located.

The first floor is planned with an assembly room and the principal's office as the centers of circulation. The assembly hall is intended to serve not only for general school purposes, but also for classes in physical education, and for general community purposes. The principal's office is so arranged that easy control is had from the teachers' waiting room and the medical-inspection room. Storage space is liberally provided.

The first floor contains ten standard classrooms. On the second floor there are ten addi-

(Concluded on Page 87)

ROBERT J. BRECKINRIDGE TRAINING SCHOOL, MOREHEAD STATE NORMAL SCHOOL AND TEACHERS' COLLEGE, MOREHEAD, KENTUCKY
Joseph and Joseph, Architects; Walter C. Wagner, Associate Architect, Louisville, Kentucky

BRECKINRIDGE TRAINING SCHOOL BUILDING, STATE TEACHERS' COLLEGE, MOREHEAD, KY.

E. V. Hollis,
Head of Education Department

The training or laboratory school of a teachers college has come to be a distinctly specialized type of school building. Such a building must not only house a modern elementary- and high-school program, but it must provide for the observation, practice teaching, and experimental work of the college proper.

The new Robert J. Breckinridge Training School building (named for one of the early and nationally known state superintendents of public instruction of Kentucky), is a splendid example of the specialized arrangement and construction that embodies this modern educational ideal. The building is located at the base of one of the knobs of the Cumberland Mountains and faces one of the beautiful and restful valleys of this mountain range. But instead of being in a place of isolation the building is really on the "King's Highway" (U. S. Highway No. 60) which passes within two blocks of the location.

The building, which is 70 by 204 ft., with an auditorium and a gymnasium in the rear at the center measuring 54 by 64 ft., is three stories high, and has 24 teaching units. These, for the most part, consist of a main classroom and one or more practice rooms for use with smaller groups of students. The north half of the building has a half-basement that houses a four-room manual-training department and the locker and shower rooms. The first main floor, in addition to typical classroom space, has the auditorium or assembly room and the usual administrative offices. The second main floor houses its share of the regular program and in addition has a specially arranged room for use in demonstration teaching. The third main floor houses the junior-high-school library,

(Concluded on Page 87)

FLOOR PLANS OF THE ROBERT J. BRECKINRIDGE TRAINING SCHOOL, MOREHEAD STATE NORMAL SCHOOL AND TEACHERS' COLLEGE, MOREHEAD, KENTUCKY
Joseph and Joseph, Architects; Walter C. Wagner, Associate Architect, Louisville, Kentucky

The Professional Education Program for School Executives

Fred Engelhardt, University of Minnesota

About one decade has passed since Douglass gathered the data for his comprehensive study on the status of the superintendent of schools.[1] The period of the initiation of this study represents the beginning of a new emphasis and renewed attention to the problems which have to do with the professional education of administrative and supervisory officers.

For the year 1922, Douglass found that 33 per cent of the superintendents reporting[2] had secured the master's degree.[3]

In a canvass made by Melby,[4] in 1928, of cities having a population between 10,000 and 20,000, there were 55 per cent of the superintendents who held the master's degree, and 3 per cent reported that they held earned doctor's degrees. Distributing all the men, from whom data had been secured for this study according to education, results in the following classification of advanced professional study:

Quarters of Professional Study Beyond the Bachelor's Degree	*Per Cent of Superintendents*
No work beyond bachelor's degree	16
1	13
2	9
3 (Minimum resident requirement for M.A. degree)	34
More than 3	28
Total	100

Possession of the master's degree is not necessarily a true measure of the extent of professional study on the part of superintendents. Many executives have the equivalent of one year of advanced professional study. This will be found true for a large number of those who attend graduate schools in which a thesis is required for the master's degree. In all 62 per cent of the executives referred to above (no doubt a selected group) report three or more quarters of study beyond the bachelor's degree.

Hendershot's[5] analysis of the professional education of the superintendents of schools in Michigan indicates for these men a median number of years of education beyond high school slightly over four and one half.

Data accumulated in 1928 for school systems in all northern states ranging in population from 2,500 to 25,000 resulted in more or less complete records of 349 superintendents.[6] A review of these exhibited a total of 73 per cent with at least professional training equivalent to the master's degree. This study shows an increase of 17 per cent over the number of men in school systems of the same size found by Douglass to have achieved this graduate distinction.

With the purpose of ferreting out the professional steps in the ladder of advancement of administrative officers the educational and experience histories of the school officers of certain northwestern states were inquired into in great detail by Hand.[7] This research has brought to light some very interesting facts concerning the professional life of 588 superintendents of eight states. Of these 50 per cent were graduates of small liberal-arts colleges, and only 29 per cent reported having the master's degree. Only 20 per cent of this large assemblage of educators had earned their bachelor's degree before they had had six years of teaching experience. The proportion of higher degrees among these school executives increases markedly as one goes from the smaller to the larger school system (Table I).

TABLE I. Distribution of Superintendents in Certain Northwestern States According to Degree Held, 1929[1]

Population Group	*Number of Superintendents in Group*	*Per Cent Represented in This Study*	*Per Cent Holding Degrees Indicated*			
			No Degree	*B.A.*	*M.A.*	*Ph.D.*
I Less than 2,500	369	20	16	66	17	
II 2,500 to 5,000	91	41	4	52	42	
III 5,000 to 10,000	63	54	6	44	49	
IV 10,000 to 25,000	45	65	2	35	56	4
V More than 25,000	20	62		27	62	10
Total and average per cent	588	42	12	58	29	1

[1]After Hand.

The median ages at which the superintendents included in this investigation received their bachelor's degree is shown in Table II. Note the consistency in the ages at which the degrees were received among the executives in the school systems of varying sizes. Recognizing the extreme maturity of the men in the largest cities in contrast to the smaller ones, there has evidently been but a slight variation in the ages at which any of these men received their first degree. Note particularly the ages at which work on the master's degree was begun and the ages at which this degree was received.

TABLE II. Median Ages of Superintendents of Schools in Certain Northwestern States at the Time at which Degrees Were Received and the Median Age at which the Master's Degree Was Begun, 1929[1]

Item	*Population Group*[2] (*Median Age*)				
	I	*II*	*III*	*IV*	*V*
Bachelor's degree received.	24	25	25	25	26
Master's degree begun	27	29	28	29	29
Master's degree received ..	35	34	34	35	34
Number of cases	369	91	63	45	20

[1]After Hand.
[2]See Table I for population classification.

Shannon reports an analysis of the education of these comprising the membership in the department of superintendence for the years 1922 to 1930.[8] The proportion of superintendents in this representation of the profession holding the master's degree has changed from 44 per cent in 1923 to 51 per cent in 1930. The relative number of these executives holding the doctor's degree has not materially changed during the period reviewed; the range limits were 6 per cent in 1923 and 3 per cent in 1930.

Evidence on Selected Groups

The evidence presented above which indicates the largest proportion of school executives with advanced degrees, is, without doubt, representative of a selected class of superintendents and presents the conditions found to exist among those who are most professionally inclined. There is, however, one quite noticeable trend portrayed in these data and that is in the increasing number of superintendents who have been granted the master's degree. Probably the chances of being selected to the better superintendencies without five years of education beyond high-school graduation are becoming rapidly less and less favorable.

Certification of Administrative Officers

Paralleling the advancements made in the education of the administrative officers of public schools there has been a corresponding tendency to prescribe particular certificates for positions other than those of teaching.[9] There is still a very wide range of practices in this regard in various states and many of these would find little support if challenged.

A comparison of the methods followed to legalize practice of the other professions with those in reference to licensing superintendents brings forth many basic differences. The membership in the organizations representing the dentists, the doctors, and the lawyers has very much to say regarding the qualifications and the standards on which entrance to the specific profession is made possible. In fact, in many states the professional organization may directly set, not only the qualifications, but they may also administer the work associated with accredited individuals with the necessary authority to practice in their chosen field. This is not the case in public-school administration.

The Professional Education Program

The catalogs of the higher institutions reveal[10] no basic uniformity in the standards required for professional study for those who anticipate training for administrative and supervisory positions. In many places the work is not differentiated from that required of teachers and the certification laws of the state fix the type of professional courses offered. Nearly every teachers college and liberal-arts college as well as practically all the universities are, if judged by what is not being done, presumably in a position to train superintendents of schools. How different this situation is from that in other professional fields. For example, the following is quoted from a recent report of the president of one of the largest universities: "The College of Physicians and Surgeons had upon its books when these were closed on May 1,1930,a total of 1,000 applicants for admission to the first-year class. Of this number, 115 were admitted."[11] Reports of other institutions will reveal similar rigid measures which are being enforced to restrict entrance to professional schools with probably the exception of those that train teachers and administrative officers for the public schools.

The result of the practices that are now in vogue in the professional training of school executives is this: one may find very large numbers of persons of the greatest variety of training and experience competing for every administrative vacancy that occurs in public-school systems. School boards are frequently bewildered in their attempt to differentiate among the mass of applications received, and in consequence incompetent persons are frequently selected to carry on a very important professional responsibility. It is indeed unfair to place the responsibility for prevailing conditions at the door of lay school-board members.

[1]Douglass, B. C., *Professional and Economic Status of the City Superintendent of Schools in the United States*, First Yearbook of the Department of Superintendence, 1923.

[2]The *Educational Directory of the Bureau of Education* was used as the basis for this study. This directory includes names of superintendents of the larger communities only. For example, this document contains (for 1930) the names of 57 superintendents of Minnesota. There are about 400 local superintendents in this state.

[3]*Ibid.*, p. 35.

[4]Melby, E. O., *The Organization and Administration of Supervision*, Public School Publishing Company, 1930.

[5]Hendershot, Clarence, *The Status of the Superintendent of Schools in Michigan*, Department of Education, University of Chicago, 1928, p. 27.

[6]Otto, H. J., *Elementary School Practices*, University of Minnesota Library, 1931.

[7]Hand, H. S., *Vocational Histories of City School Superintendents*, University of Minnesota Library, 1930.

[8]Shannon, J. R., "Academic Training of City and Town Superintendents," *School Executives Magazine*, Vol. 50, No. 5, January, 1931, p. 214.

[9]Morrison, J. C., "Certification for Improving Professional Leadership," THE AMERICAN SCHOOL BOARD JOURNAL, Vol. 76, No. 5, May, 1928, p. 49.

[10]Edminister, J. M., *An Analysis of the Curricula and Courses Offered in the Field of Educational Administration and Supervision by the Colleges and Departments of Education in the Universities of the United States*, University of Minnesota Library, 1928.

[11]*Report of the President of Columbia University*, Bulletin of Information, No. 13, December 27, 1930, p. 35.

Conference on the Training of Superintendents of Schools

That there is complete awareness of the situation which the profession is facing is apparent as one studies the reports of the recent conferences held to discuss the issues. In 1928, at the Boston meeting of the Department of Superintendence one section was set aside for the purpose of discussing professional educational problems. In 1929, at Cleveland, the subject was again given an important place on the program and at the conclusion of the meeting it was agreed that the Executive Committee of the Department of Superintendence should be asked to establish a permanent committee for the study of the problems associated with the education of superintendents. Evidently no action was taken.[12] That the men in the field are interested in seeing higher qualifications established for supervisory and administrative positions is indicated by the expressed action of the superintendents of schools in Minnesota in 1924. During the convention held in that year it was resolved that the proper state authorities should be petitioned to increase the professional qualifications for the position of superintendent of schools to an equivalent of at least the master's degree.

Opinions Differ in Reference to Educational Plans

A review of the conference sessions held to discuss these problems of professional training discloses some distinct differences in opinion among the leaders. There are those who hold that it is not necessary for men who aspire to the superintendency to follow that circuitous path which has been followed by so many. Those who adhere to this philosophy contend that men may be prepared specifically for the superintendent's position. They challenge the argument that a superintendent needs to have had experience as a teacher or a supervisor in order to administer successfully a school system.

There are, on the other hand, those who do not believe that a plan devised to educate superintendents specifically for the task without experience or related training is either feasible or desirable. This latter group subscribes to the general principle that the broader the experience contacts that a well-trained young man may have in actual responsible positions the greater are the potential possibilities of more genuine ultimate success as a superintendent of schools. Without adequate experimental evidence to support either contention, the topic offers continued opportunity for academic debate.

The arguments set forth by both sides parallel somewhat those which have been advanced concerning the qualifications for the position which is delegated the administration of the business affairs of a public-school system. There are few among the educational leaders today who will advocate a program for the administration of public-school business affairs by those who have had little actual contact with schoolwork.

There are numerous factors which contribute to the success of a superintendent of schools. These have not as yet been clearly isolated, differentiated, or defined.[13] Yet the differences of opinion as expressed above are no doubt due to a failure to differentiate among positions held by the superintendents. Most superintendencies may be classed into one of three separate categories. There is that group which comprises about 80 per cent of the local public-school executives in this country. These are the superintendents in the small school systems who teach, supervise, and who are the administrative officers of the entire system. One may believe that many of the positions in this class should not be designated as superintendencies, yet they are so considered and there is little evidence which suggests any immediate change. The training of men for these positions is a specific professional task involving preparation for teaching, supervising, and various administrative activities.

The second group includes the superintendents in communities ranging in population from 2,500 to about 50,000. There are about 2,500 positions in this class. The duties of these executives rarely include teaching, yet the performance of specific supervisory and administrative duties are to be found among the daily tasks which they perform. Many of these men are the superintendent as well as high-school principal in the system in which they are employed. The training of men for these positions is likewise a professional task extending beyond that demanded for the first group.

The third group represents less than 200 large cities. The superintendents in these places do not perform many specific supervisory or administrative tasks. Their activities comprise the broader functions of the executive, that is, responsibility for planning, for leadership, for developing community relations, for the coördination of all activities, and for the delegation of responsibilities. The success of these men depends largely on the skill with which their associated staff perform the specific jobs of administration and supervision. Superintendents in these large cities need no longer know just how an administrative activity is to be performed, but rather what must be done, who is the best person to do it, as well as when a task is well done. In many respects success in the large superintendencies depends on traits somewhat different from those which may assure success in the smaller places — traits which have weathered the struggle of years of experience in addition to professional insight and skill gained through education.

[12] *Official Report*, Department of Superintendence, 1928, pp. 83–107; 1929, pp. 263–267. Among other significant meetings was the one held at Teachers College, Columbia University, during the inauguration of Dean Russell in April, 1928, and another held by professors of educational administration at the Department of Superintendence meeting at Atlantic City in 1930.

[13] Broome, E. C., "What Attributes Contribute Most to a Superintendent's Success," *The Nation's Schools*, Vol. 5, No. 5, May, 1930, p. 1.

Professional Training for Immediate Selection

That superintendents are quite mature when they reach positions of significance is shown in Table III. Over 30 per cent of the 571 superintendents reporting to Hand indicated that they were 33 years of age or older when appointed to their present position. Note particularly (Table III) the ages at which superintendents were appointed in large school systems. These data give some indication of the attitude of the selecting agencies in reference to the type of men desired.

TABLE III. Distribution of Superintendents of Schools in Certain Northwestern States According to the Age at which They Were Selected to the Position They Now Hold, 1929[1]

Ages at Time of Appointment	*Population Group*[2] *I*	*II*	*III*	(*Number of Superintendents*) *IV*	*V*	*Total*
Below 25	121	3	2			126
25 – 28	140	18	3	4	1	166
29 – 32	62	23	16	6	1	108
33 – 36	22	28	22	12	4	88
37 – 40	10	9	8	9	3	39
41 – 44	2	4	8	5	6	25
Over 44		3	3	8	5	19
Total	357	88	62	44	20	571

[1] After Hand.
[2] See Table I for population classification.

Douglass (1922) found that 30 per cent of the superintendents in cities having a population of 20,000 or more were over 49 years of age and only 10 per cent were under 36.[14] Recent studies show little change in the ages of superintendents.[15]

Positions From Which the Superintendent is Selected

It has been a well-known fact that even in medium-sized cities superintendents have been recruited largely from among high-school principals. In the larger places the executives are chosen from among the superintendents in somewhat smaller cities. Evidently there appears to be no evidence that methods of selection now in vogue are materially affecting any change in the practices which have been well established. In the states studied by Hand[16] it is revealed that many of the superintendents started their careers in rural schools. Shifts (Table IV) from secondary-school positions to superintendencies apparently continue to be made without abatement. There is a definite tendency for changes in position made by superintendents employed in communities having a population of more than 2,500 to result in appointments to the executiveships in the larger places.

Nearly 27 per cent of the superintendents reported in Hand's study were appointed to their present position from high-school principalships. In fact, over half of them were engaged in secondary-school work the year prior to the acceptance of their present position (Table V). Note particularly in the tabulation that high-school principals have been appointed to superintendencies in communities of all sizes.

Table VI illustrates rather clearly the size of community involved in the shift of superintendents from one type of position to another in any

TABLE IV. Distribution of All the Changes in Position Made by 588 Superintendents According to the Nature of Each Change Made, 1929[1]

Key	*Position Accepted*	*Vacated Position*[2] *A*	*B*	*C*	*D*	*E*	*F*	*G*	*H*	(*See Key for Items*) *I*	*J*	*K*	*L*	
	Teacher													
A	Rural school	112	1	3	2									118
B	Elementary school	32	17	3	2	1	1							56
C	High school	30	19	117	17	4	12	1	23	1				234
	Principal													
D	Elementary school	36	10	15	50	1	5	2	4			1		15
E	Junior high school	5	1	7	2	10	4		5					34
F	High school	23	12	82	22	4	101	2	28	1	1	2		278
G	Supervisor	2		4	2		1	4	2					15
	Superintendent in communities having a population of													
H	Less than 2,500	46	15	167	38	12	159	5	385	6	2	1		835
I	2,500 – 5,000	1	1	9	2	4	28	1	65	24	3			138
J	5,000 – 10,000			6	7	1	18	2	35	17	7			93
K	10,000 – 25,000	1		2	3	1	12		4	6	17	6		52
L	More than 25,000			1	1		6		3	1	5	3	4	24
	Totals	288	76	416	148	38	347	17	554	55	35	13	4	1,991

[1] After Hand.
[2] Read: The 588 superintendents in selected Northwestern states studied reported that during their careers there were 112 shifts from rural schools to rural schools, 32 shifts from rural schools to elementary schools, etc.

[14] Douglass, *ibid.*, p. 114.
[15] Shannon, J. R., "Professional Advancement of City and Town Superintendents," *School Executives Magazine*, Vol. 50, No. 6, February, 1931.
[16] See footnote 7.

TABLE V. Percentage Distribution of Superintendents in Certain Northwestern States According to the Position which They Left to Accept Their Present Appointment, 1929[1]

Position from which Superintendent Came	*Population Group (Communities in which Superintendents Are Now Employed)*					
	2,500	*Less than 5,000*	*5,000–10,000*	*10,000–25,000*	*Over 25,000*	*Totals*
Teacher						
Rural school	8.4	1.1				5.4
Elementary school	5.4	1.1	1.6			3.7
High school	30.4	12.0	6.6	6.7	20.0	22.6
Principal						
Elementary school	5.7	2.2	4.8		6.7	4.7
Junior high school	2.2	3.3				1.9
High school	27.9	26.4	22.9	27.6	13.6	26.9
Superintendent in communities having a population of						
Less than 2,500[2]		46.2	39.7	6.7	13.0	12.2
2,500 – 5,000			17.8	11.1	6.7	2.9
5,000 – 10,000				34.4	26.0	3.4
10,000 – 25,000					13.6	0.5
Over 25,000					0.4	0.3
First position as superintendent	11.9					7.6
Other	8.1	7.7	6.6	13.4		7.9
Totals	100.0	100.0	100.0	100.0	100.0	100.0

[1]After Hand.
[2]Population groups.

one year. There is a definite movement to larger places as one would naturally expect. Yet there are a number of cases in which superintendents see fit to leave the larger cities to accept a position in a smaller one.

TABLE VI. Distribution of Superintendents According to Size of Community in which They Are Now Employed and the Size of Community from which They Came to Their Present Position, 1929[1]

Size of Community from which the Superintendent Came	*Population Group (Communities in which Superintendents Are Now Employed)*					
	Less than 2,500	*2,500–5,000*	*5,000–10,000*	*10,000–25,000*	*Over 25,000*	*Totals*
Less than 1,000	58.6	12.2	3.2			39.7
1,000 – 2,500	20.9	44.9	30.1	6.7	6.7	25.8
2,500 – 5,000	5.2	29.7	22.2	18.8	13.3	11.9
5,000 – 10,000	2.1	4.4	36.5	34.8	40.0	9.3
10,000 – 25,000	9.3	3.3	6.4	34.3	20.0	4.4
Over 25,000	1.0	5.5	1.6	5.4	20.0	3.4
Now in first position	11.9					7.5
Totals	100.0	100.0	100.0	100.0	100.0	100.0

[1]After Hand; 588 superintendents in selected states of Northwest.

Facts Which Must be Faced

The data presented above are indicative of the real problems which confront those endeavoring to formulate a professional educational program for those who anticipate public-school administration. If one were to canvass the duties which engaged the time of those who were advancing up the ladder to executiveships a more involved picture would result.

A review of the facts available suggests that the same forces which determine appointment and promotion are operating in about the same way today as in the past. This is to be expected, since lay school boards appoint superintendents and little specific information that might tend to modify practice has been conveyed to them. The more one studies the evidence the more one realizes that there is little hope for the immediate success of any educational plan that might contemplate educating young men and women for superintendencies in the belief that persons so educated may hope for an immediate appointment to an executive position of any consequence.

Evidently higher institutions do not educate men specifically for the larger superintendencies. The process appears to follow a course that starts with an education for teaching. Advanced professional study during the summer months supplements the need of those who are selected or those who are anticipating appointments to more responsible positions. During the first few years out of college selection takes place, growth of judgment comes with continued experience and continued professional education. In the final analysis those men who survive and those who demonstrate their ability in a variety of educational positions are among the number who remain to be considered when positions in the larger communities are open. Obviously there are exceptions to the general rule, yet the exceptions are not the basis on which a professional educational program can be developed.

There are certain practices which have survived a long period of trial and which have much to commend them as necessary steps in the education of those who contemplate careers in public-school work. The young man who may aspire to the higher executive offices in the schools must, in the first place, have an abundance of native competence. In the natural course of events he will be ready to graduate from a college of education at about 21 years of age. It is quite generally agreed that his undergraduate education should provide a broad cultural background for him and that considerable emphasis on the social sciences would be very desirable. In view of the wide range of responsibility which always falls on the school executive the undergraduate period of those who aspire to this professional field may well be extended to five years.

The undergraduate program in education for this professional group should include study in educational psychology, method, and a general introduction to the fields of supervision, organization, and administration. The work should involve satisfactory opportunity for practice in teaching and in learning to appreciate through actual contact the problems of the public schools. An educational background as described above would provide the occasion for guidance for the institution responsible for the professional education in this field and it also opens up the possible avenues of service for those who hope to make education their lifework.

It is believed that the person who has completed the above program is prepared to assume certain responsibilities in school systems. As a teacher the individual has the chance to appreciate the problems of the schools from actual contact. He learns by experience to evaluate the significance of the classroom, the pupil, and the teacher in the educational enterprise. Above all, he has opportunity to judge himself and to learn how others judge him as one who may or may not have those essential traits which lead to success in executive and administrative work. After two years of this initial experience he should know if teaching should be his goal or if he should select administration, supervision, or research as his lifework.

The institutions from which these young people are graduated should keep contact with their products, and should be of great service to individuals in helping them in the development of their careers. Continued professional study in summer schools should be encouraged and after not less than two years of teaching experience those who contemplate administrative positions should be encouraged to return to the universities for advanced study. This advanced study should continue for at least one year and on the completion of the work the young man should be ready to accept such an administrative position as may be open to him. Obviously this program does not conclude the formal education for those who hope to arrive in the most desirable positions. Education in summer school, or study during leave of absence must continue to parallel experience.

A person following a plan similar to that described above would be about 25 years of age at the time he enters the first small superintendency, principalship, or assistant superintendency. These young executives will not be older than the young men who enter other comparable professions, nor older than superintendents of past generations when they had reached corresponding positions. In many respects the prospective superintendent who has followed a program similar to the one suggested has certain advantages over other professional workers, in that he has had his initial years of experience prior to the completion of his professional study.

This sketch of a possible educational career for the prospective superintendent of schools is evolved solely out of an interpretation of facts and conditions as they exist. This plan is not adequate for all cases, and to develop a satisfactory educational program generally applicable to young men and women who desire to specialize in administration and supervision in public education will require extended study conducted coöperatively by those in the higher institutions and those in the field. The problems which are involved are not only related to specific course requirements, practice teaching, or apprenticeship, but they are inherent in the organization devised by the several states for the administration of public education. As has been said again and again there is much to be done toward creating a more satisfactory unit of administration within the states before a stabilized educational program for the executive officers for public schools can be developed.

SCHOOL ARCHITECTURE AND COMMUNITY

The ambitious desire of every community is to have an enviable school plant that is at once the community's chief public edifice and home of its educational institute. Chief of the measures of the life and pride of an American city or village community is the kind, extent, and quality of its system of public education. This measuring stick of community life and its success or lack of success is that of the lay citizen and school patron, not that of the professional educator. Such profound faith now ingrained in the popular mind in the basic and far-reaching importance of the public schools is an everlasting credit to those teachers who have gone before us and an ever present challenge to us and those who come after us, to justify the faith in the work which is intrusted to our hands. — Lola S. Hixon, Albany, New York.

Marked Progress in Consolidating Rural Schools

C. H. Skidmore, Superintendent of Box Elder District, Utah

In a "county-unit" district like Box Elder, Utah, which includes an area about the size of the State of Massachusetts, the problem of consolidating schools is interesting. The plan proposed in 1926, in the April issue of THE SCHOOL BOARD JOURNAL (p. 54), has proved to be very successful in this district. An average of more than one consolidation per year has taken place here, and no community which has adopted consolidation has asked for a return to former conditions. A large majority of school patrons appreciate the many added advantages made possible in the consolidated schools. Great progress is in evidence.

The map below is in striking contrast to the map drawn in 1926. It shows the location of 50 school-bus routes, operating at a cost of more than $50,000 per year. It gives the distribution, each half mile, of all students enrolled and a tabulation of all students receiving transportation benefits, including length of bus routes, cents per pupil per mile per day, and other data.

In the year 1924–25 there were 257 pupils transported in wagons but now only 46, and these only part of the year; and there were 54 coming on electric trains, but none are coming on electric trains now. The busses come nearer their homes and take the pupils to the front gates of the school campus. The number of school busses has increased from 30 to 50, and the number of pupils transported in them has increased from 500 to 1,400 since 1925. The total number receiving transportation benefits in 1925 was 1,008, and in February, 1931, it was 1,611.

The number of promotions in all the grades was increased, but noticeably from the sixth grade up, as follows:

Comparison of Promotions in Upper Grades in 1925 and in 1929–30

Grades	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Year 1924–25 ..	495	471	394	395	302	243	149
Year 1929–30 ..	490	427	437	459	337	289	230

Through consolidation, which has increased high-school attendance, there has been a decrease in the number of elementary teachers, but an addition of 11 high-school teachers, including 3 agricultural teachers, who are employed the year around. Teacher turnover has been decreased from 35 to 18 per cent, and the average number of years of normal and college work accredited to teachers' preparation has nearly doubled in the same time. Each consolidation which has been made has saved the district from $800 to $1,600 per year, or has made it possible to apply that much more to the enrichment of school facilities. Even the one-room schools which are too remote to be consolidated have been much improved. There has been little change in the cost per pupil per mile (from 1.9 to 1.8 cents) for transportation; however, the type of bus and bus regulations are quite superior. The county commissioners, too, have coöperated with the board of education in improving the roads on the school-bus routes.

To study future improvements it seems necessary for a district to have a clear distribution map of all pupils enrolled. During February, 1931, there were 5,495 pupils in Box Elder, with residences distributed by half-mile distances out from the schools, as follows: the first half mile, 2,054; the second, 1,102; third, 431; and so on; 263–277–148–161–113–87–144–121–132–96–74; and 292 ten or more miles from school.

To bring about consolidations it seems necessary to first create a sentiment in favor of such change, even though this may take two or three

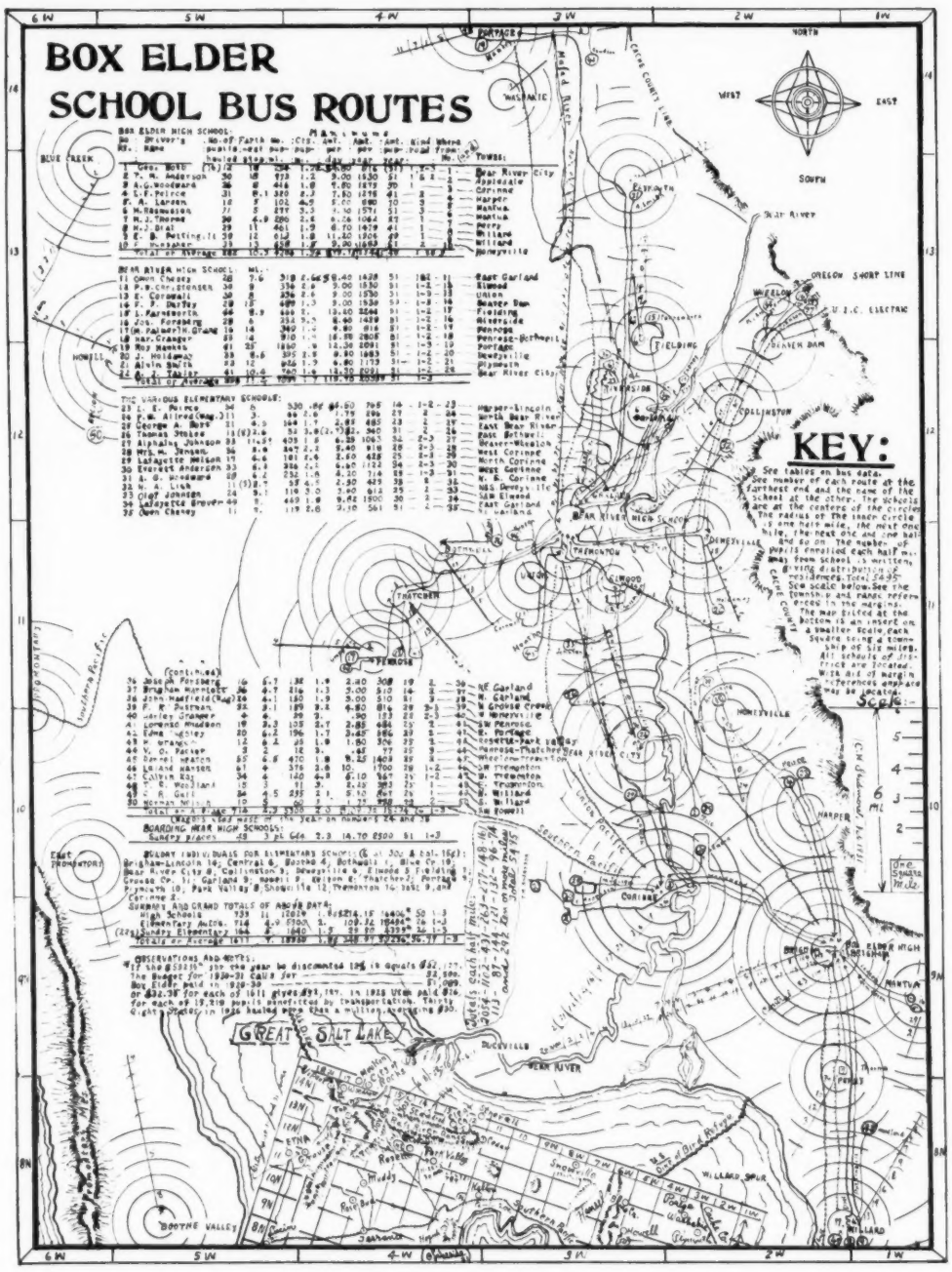


CHART SHOWING SCHOOL BUS ROUTES

years' time. Patrons may be invited to visit successful consolidated districts. Local community meetings may be called and the motives explained. Almost invariably, at the first meeting the majority of the people will go away with the idea that the school board is trying to "rob them" of their little town school rather than bring better school facilities right to their door. The second yearly meeting will likely prove more favorable than the first. Finally, a few progressive ones will be willing to lead out in the community until a majority is willing and desirous of giving consolidation a trial. School-board regulations, county laws, and good state laws urging consolidation, are all helpful; nevertheless, it is well to study the sentiment of the people before going ahead. Then a district can move conservatively but steadily forward without unfortunate setbacks.

It is usually desirable to employ a reliable bus driver from the community concerned and in whom the people have confidence. Most of the 50 drivers listed on the map referred to above reside in the communities from which pupils are hauled to consolidated schools. Each driver is under a definite contract to abide by bus regulations provided by the board of education. He owns his bus and usually keeps it in his home garage. Where districts are smaller and where a central school shop and garage is conveniently accessible, a district may prefer to own its busses and handle the whole problem of transportation directly.

Some costs in the table on the map seem to be proportionately high or low. Most of these can be easily explained by the length or condition of the route, the number of pupils hauled, the type of bus, or because of certain rather voluntary concessions; such, for example, as in case of number five where the driver, besides transporting the 12 students listed on the census, also carries several others, who are older, and for whom there may be no legal allowance. Otherwise, the tables are self-explanatory.

When the country roads were much poorer than at present and when teachers had to depend upon the railroads to take them near their schools in remote places, the district was divided into four zones and a yearly allowance of $50 from zone to zone, outward from Brigham City, the county seat, was added to the salaries of teachers — distances from railroads being the chief basis for said zone classification. With improved roads and convenient automobile service at hand a new basis of classification was recently sought. The professional spirit of

(Concluded on Page 87)

The National Survey of School Finance

Paul R. Mort, Associate Director of the National Survey of School Finance

The National Survey of School Finance is the fourth of the major surveys to be inaugurated by the Office of Education. It was preceded by the survey of Land Grant Colleges, which has been completed, and by the teacher-training and secondary-school surveys now in process. Each of these surveys is carried on under the direction of the commissioner of education and of an associate director not a member of the regular staff of the Office of Education.

The National Finance Survey was begun on July 1, pursuant to an act of Congress providing for the expenditure of a sum not to exceed $350,000 during a four-year period and appropriating $50,000 for the first year.

A board of consultants of 17 members was appointed by the secretary of the interior to act as a policy-forming body. The following is the membership of this board:

WILLIAM G. CARR, Director of Research, National Education Association, Washington, D. C.

LOTUS D. COFFMAN, President, University of Minnesota, Minneapolis, Minn.

ALBERT S. COOK, State Superintendent of Schools, Baltimore, Md.

N. R. CROZIER, Superintendent of Schools, Dallas, Texas.

FRED R. FAIRCHILD, Professor of Political Economy, Yale University, New Haven, Conn.

MARK GRAVES, State Tax Commissioner, Albany, N. Y.

ROBERT M. HAIG, Professor of Business Administration, Columbia University, New York City.

ARTHUR N. HOLCOMBE, Professor of Government, Harvard University, Cambridge, Mass.

L. F. LOREE, President, Delaware and Hudson Railroad, New York City.

HARLEY L. LUTZ, Professor of Public Finance, Princeton University, Princeton, N. J.

FELIX M. MCWHIRTER, President, Peoples State Bank, Indianapolis, Ind.

FRED W. MORRISON, State Tax Commissioner, Raleigh, N. C.

HENRY C. MORRISON, Professor of Education, University of Chicago, Chicago, Ill.

ORVILLE C. PRATT, Superintendent of Schools, Spokane, Wash.

GEORGE D. STRAYER, Director of Educational Research, Teachers College, Columbia University, New York City.

FLETCHER HARPER SWIFT, Professor of Education, University of California, Berkeley, Calif.

ROLAND A. VANDERGRIFT, Director of Finance, State Department of Finance, Sacramento, Calif.

In addition to the board of consultants a somewhat larger advisory group is being set up to meet from time to time to consider the program of the survey and to advise with respect to its prosecution. This is in accord with the plan followed in the other major surveys.

A headquarters staff has been set up at Washington, consisting of five full-time research workers and three clerical workers. A number of temporary workers were employed during the months of September and October. Several of these workers were engaged in the task of bringing together and abstracting a bibliography of school finance under the immediate supervision of Dr. Carter Alexander, of Teachers College, Columbia University. The others were engaged in a study of educational costs under the supervision of Dr. Mabel Newcomer, professor of economics at Vassar College.

During the first two months of the life of the survey a tentative program was developed through a series of conferences with a large number of individuals and groups. This plan was submitted to the board of consultants at its meeting on September 14.

The major headings of the outline submitted to the board of consultants are as follows:

1. Financial Implications of Principles Underlying American Public Education
2. The Present Status of Expenditures for Educational Purposes
3. Predictable Changes in Expenditures for Schools
4. School Indebtedness
5. Educational Returns for School Expenditures
6. Sources of School Support
7. Ability to Support Schools
8. State Support Systems
9. The Federal Government and School Finance
10. School Organization and Control as Related to School Finance
11. Increasing the Efficiency of School Expenditures
12. School Financial Accounting, Auditing, and Reporting
13. Bibliography on School Finance

Under these headings were classified the various problems associated with financing public schools and higher institutions.

At the meeting on September 14, at which sixteen of the seventeen members were present, the board of consultants showed no disposition toward a premature delimitation of the scope of the survey, but rather confined their deliberations to the raising of issues not covered by the outline, and the clarification of obscure points. In addition the relative interest of the board in the various phases gave the staff valuable guidance in the placing of emphasis. The board showed particular interest in the consideration of fundamental principles underlying school finance, in questions of economic ability to pay, in the efficient organization of school districts, in the placement of control over schools, and in the efficient management of school funds.

Further work is being done on the development of the program by means of regional conferences and conferences with individual members of the board of consultants and others interested in the various phases of school finance. The regional conferences will bring the staff in contact with the particular problems faced in the various states. At these conferences there will be invited representatives of the state department of education, the state university and other universities, the normal schools, the university departments of education, taxation, and finance, the state teachers' association, state officials interested in tax and budget matters, superintendents of schools of both city and rural areas, and other interested citizens.

The headquarters staff is now working on the detailed planning of the studies outlined under each of the major divisions of the tentative program. This will make it possible to lay before the board of consultants and other advisers the exact plans for the various studies before they are initiated. It should help also in deciding the allocation of problems to research centers and graduate students as the program develops.

The studies of status and the development of the bibliography are being continued. The questionnaire sent out last year to all of the teachers throughout the country by the teacher-training-survey group is proving helpful in obtaining basic data on salaries over widespread areas. It is hoped that the bibliography which is well under way will be not only a contribution in itself, but will be a timesaver for the research workers both on the survey staff and in the field.

Another important task of the next few months is the development of a plan for the second and following years of the survey which will bring about a practical coördination of the efforts of the headquarters staff, workers in the various research centers, and graduate students.

Some of the questions which the survey will attempt to answer are as follows:

1. *The Cost of Public Education*
   - What do we pay for education?
   - Why has expenditure for education increased so markedly?
   - Where will present tendencies lead?
   - How much public expenditure is really needed?
   - What can we afford to spend for education?
2. *Returns for Money Spent*
   - Why do expenditures vary so widely from place to place?
   - What advantages are obtained by communities spending exceptionally large amounts for education?
   - What disadvantages are suffered by communities spending exceptionally small amounts for education?
3. *The Tax Burden for Public Education*
   - Under present financing systems, how is the tax burden for education distributed?
   - What changes in taxation and in state and federal aid would bring about a more defensible distribution of burden?
4. *The Elimination of Backward Areas in American Education*
   - Why do they exist?
   - What will it cost to eliminate them?
5. *Efficient Expenditure of Educational Funds*
   - How can we secure greater value for what we spend?
   - How can we effect economies?
6. *Public Education During Business Depressions*
   - How should education be dealt with during business depressions?
7. *The Use of Indebtedness*
   - What place is indebtedness now taking in educational finance?
   - What place should it take?
8. *Public Enlightenment on Educational Finance*
   - How can the public be continuously informed on the pertinent questions of educational finance?
9. *The Economic Status of the Teacher*
   - What are the conditions that should determine salaries of teachers?

The chief objective of the first year of the survey is to develop a defensible program for the four-year study. In the development of this program every effort will be made to obtain the benefit of the counsel of persons representing a wide variety of interests and points of view. In addition it is planned to make as much headway as limited funds permit on basic studies of the status of educational expenditures.

ROCKFORD ADOPTS NEW ECONOMY MEASURE

The board of education of Rockford, Ill., during the past summer, adopted a new economy measure which is intended to save $20,000 during the school year 1931–32. The teachers have not suffered any salary reductions, but on the contrary, they were given their usual salary increases for their 1932 contracts. The new plan went into effect with the opening of the school year in September.

Under the new plan, all persons employed as substitute supervisors, principals, and teachers received for each school day during employment compensation at the rate of $5 per day for services in the kindergarten and first six grades, and $6 per day for services in the junior and senior high schools and in opportunity, sight-saving, deaf, crippled, and fresh-air classes. Under a previous rule, substitutes who accepted a position for one month or longer, were paid the salary schedule of the regular teacher.

Beginning with the school year in September, all unmarried teachers who serve as supervisors, principals, or teachers were employed with the understanding that, upon marriage, their employment would cease. Where the marriage of the teacher takes place after the beginning of the semester, the employment would continue for the remainder of the semester only, and no married woman teacher would be continued in service during the succeeding semester. The new rule was intended to eliminate a former custom under which women teachers who married were allowed to teach until their contract expired.

During the school year, it was ruled, no compensation will be paid on account of sick leave. The policy of compensation of teachers during sick leave was discontinued temporarily for the present school year, for reasons of economy.

The Score Card as a Tool in the Selection of Textbooks

C. R. Maxwell, Laramie, Wyoming

The problem of selecting the most satisfactory textbooks to realize the aims of education has received considerable attention in recent years. Publishers are constantly endeavoring to secure the most effective materials that have been prepared by competent persons in every phase of subject matter. Teachers and administrators are desirous of placing in the hands of the pupils materials that will function in light of aims and objectives that have been set up. It is commonly recognized that textbooks greatly influence the selection of curriculum materials and frequently affect classroom procedure. It is well known that courses of study in school systems have many times been outlined merely to fit materials in the textbooks that are in use. Even when this has not been the case, courses of study that have been outlined without any thought of the textbooks to be utilized have had less influence on teaching procedure than have the adopted textbooks.

In theory there has been little disagreement on the proposition that textbooks should be selected on the basis of children's needs and that extraneous factors such as the prestige of the author, reliability of the publisher, wide use of particular books, etc., should have no bearing in selection. There has been little disagreement to the statement that teachers who are to use textbooks in their classrooms should have a voice in the selection; that the selection should be the joint duty of teachers, supervisors, and administrators — those persons who are directly responsible for the conduct of our schools.

At present there seems to be a tendency to recognize that the supervisory unit — whatever that may be, whether city, county, or intermediary district — is probably the best unit for the adoption of textbooks, and that a district based on a political division, such as county or state, does not tend to represent the best area for the selection of textbooks.

Few will disagree with the thesis that the selection of textbooks is a professional matter and that lay people represented by boards of education, because of their unfamiliarity with educational ideals, objectives, and aims are not in a position to select suitable subject material for public schools.

The Score Card Aids Technique

If one will admit there is a general agreement to the foregoing statements he will also admit there are differences of opinion on the proper techniques to utilize in the selection of particular textbooks. A device that has been utilized in recent years — the score card — has occasioned considerable controversy. Writers on the subject of the proper selection of textbooks introduced the score card as a device to aid in the evaluation of textbooks more than a decade ago. The score card as an instrument in developing a better technique for selection of books has been greatly misunderstood. It has been misunderstood because it has not been sufficiently used, because it has tended to minimize political influence in adoptions, because it has attempted to supplant subjective standards by more objective ones, because it has aimed to substitute careful analysis for high-pressure salesmanship.

It is a device that has been used in the field of agriculture for many years, and we no longer find the specious arguments made against the use of score cards in this field that we find made against them in their use in the selection of textbooks. It is no more subjective to analyze the factors in a textbook than it is to score the appearance of a fat steer. The final test of the steer, one might easily say, would be the number of pounds of juicy meat that a housewife could use, but that isn't the basis on which the prize ribbon is given. One might also say the final test of the textbook would be the progress that a child makes in any particular subject, but that cannot be the basis on which the textbook will be selected.

In a discussion of the "Thirtieth Yearbook on the Textbook in American Education," a representative of a publishing company in speaking of the score card as a device in selecting textbooks, made the following statements: "I know of no bit of propaganda which permits of the exercise of such devilish ingenuity," and also, "I know of at least one textbook — who wrote it or published it I refuse to tell — that represented an entirely new conception of its subject, manifestly sound. That book deserved 90 per cent of the business and would not have received 10 per cent of it if judged by any previously arranged scoring device."[1]

An Absurd Charge

Such statements indicate that the author either wishes to throw dust in the eyes of teachers and administrators who are confronted by the duty of selecting textbooks or that he has wholly misunderstood the efforts of individuals who have been searching for improved techniques. If a book represents a new conception of its subject and this conception has any relation to the objectives in the minds of the people who teach the subject, it is absurd to state that a score card makes recognition of the new conception impossible. On the other hand, if the ideas are so foreign to the conception of a teacher who is teaching the subject that he would not see its relationship, it would be absurd for him to select the book. The statement of this writer implies that it would require the aid of a representative of the publisher to recognize the merits of such a publication.

In this article the author also implies that it is valuable to permit a bookman to point out the excellencies of his text and also to expose the fallacies of his competitors. It is difficult to interpret these statements to mean anything else than that this writer still believes in high-pressure salesmanship in contradistinction to a careful, unbiased analysis by the individuals who are to use the textbooks in their classrooms.

People who have been interested in formulating score cards as a guide in the selection of textbooks have been imbued solely with the idea of devising a technique that would furnish an instrument for more careful analysis of materials. It has been unfortunate that publishers have been accused of formulating and suggesting the use of score cards that would insure the selection of the textbooks which they publish. There may be instances of this kind, but there is no more reason for the condemnation of using score cards than to prohibit automobiles on our highways because we have some careless drivers. It is undoubtedly safe to say that all the workers in this field appreciate that the selection of a textbook is an arduous task, that it cannot be done in a hasty manner, that analyzing from different points of view, and giving weights to certain ideas which tend to be objective will result in a better selection than would be the case if one should make a cursory examination without a definite guide.

Why Cards Are Not Used

Investigations show that score cards have not been so widely used as many of their advocates had hoped, but this can be attributed to the following causes:

First, teachers in training have not been given instruction in the important problem of textbook selection; training schools for teachers have too frequently taken an idealistic attitude toward school procedures. For instance, it has been assumed that proper motivation would secure 100-per-cent attention without giving training in taking care of the problem child. It has also been assumed that the textbook is an accessory in the classroom as it has frequently been in training-school classes rather than the tool that has been the guiding star of the teacher in his daily procedure. Consequently teachers have frequently received little training in practical problems that confront them when they are in the school system, and this is one reason why the hard-headed superintendent, who has little time for supervision, frequently hesitates to take into his corps inexperienced teachers fresh from the normal school or teachers college. The teacher, therefore, does not appreciate the difficulties involved in selecting a proper textbook and, when she is dissatisfied with the one in use, she is an easy victim of the dapper well-groomed, smooth-tongued salesman, who points out that his textbook overcomes the obstacles encountered in the book she has been using with such unsatisfactory results.

In the second place, textbooks have been "sold" for so many years on the same basis as washing machines and vacuum cleaners that it takes a considerable time to change the point of view of laymen, school administrators, and publishers. The writer well remembers as a small boy when his father was a member of a school board how he was importuned by bookmen in the same way as by mowing-machine salesmen. The only advantage that the mowing-machine salesman had was that he could demonstrate his machine out in the hayfield, whereas the salesman of the textbook emphasized the colors of the covers and the esthetic value of his textbook illustrations. The techniques of salesmanship, however, were quite the same. It is difficult for us to get away from the influence of that bygone age.

Score Card Not Wooden

In the third place, the instability of our teaching corps in other than our larger communities has tended to reduce the time necessary to make a careful analysis of a textbook based on a comprehensive score card. This factor is gradually being overcome by the greater tenure of teachers, except in our rural communities.

A score card for the selection of textbooks is not necessarily a wooden instrument as it has been characterized. It must be prepared with care in the light of educational objectives which are ever changing, and it must be outlined to make provision for such changes. It must be brief, but in sufficient detail to analyze textbooks to discover the excellencies and weaknesses of individual texts. It must be utilized to analyze a sufficient number of texts in order that the range of books in a particular field will be given consideration. After books have been examined in light of score cards, in many instances the representatives of publishing companies will need to be given an opportunity to answer questions which may arise about their books. If the representative appears before a committee or confers with an individual after his book has been examined, that will obviate the criticism that a prejudiced selection has resulted because of the personality and salesmanship ability of the representatives. It will also result in a selection on a higher plane as in this way the representative has the opportunity to point out the excellencies of his own book without the tendency to criticize his competitor's product.

[1] P. A. Knowlton, "Comments on 'The Textbook in American Education,'" *Educational Administration and Supervision*, April, 1931.

Bonding Versus Pay-as-You-Go—III

Don L. Essex, Assistant, School Buildings and Grounds Division, State Education Department, Albany, N. Y.

It has been pointed out repeatedly that as a general principle the use of the pay-as-you-go plan should be limited to cities in which building is annually recurrent or nearly so. It would seem that this principle has no implications for the use of the pay-as-you-go plan in our smaller cities in which school buildings are built only at long intervals. In this article, however, it is proposed to show that by coöperating with the other departments of the municipal administration, school officials can in some instances finance school buildings even in small communities on the pay-as-you-go plan.

A city offers many services to its citizens in return for taxes. These services involve expenditures for improvements the same as do schools. If each improvement is considered by the head of the particular municipal department which provides it as being entirely isolated from all other improvement programs, it will be necessarily nonrecurrent. For example, a small city will not build a town hall or a library but once in a generation or even less often, unless its rate of population growth is extremely rapid.

However, if school and municipal authorities will coöperate in the matter of financing their improvements, the expenditures for these improvements can be made to recur regularly, and in many instances annually.[1] By a little wise planning and the laying out of a program of necessary public improvements, including schools, in the order of their urgency, it becomes possible to pay-as-you-go to a large extent.

In general, the formulation of a long-term improvement program involves the following procedure:[2]

1. Enumeration of improvements by departments and projects, and the estimated cost of each.

2. Determination of means for financing each project, and total required revenue from each source.

3. Determination of the legal and practical limitations upon each means of financing, during the period.

4. Correlation of total available revenue from all sources with the estimates of expenditures, in total and by projects.

5. Recommendation of a definite program of improvements by departments and projects, and means of financing them.

Reasons for Long-Term Budgets

In writing of the Trenton budgeted city plan, Ford[3] says that all proposed public improvements and all capital expenditures were first determined scientifically by means of mathematical studies, and then the order of relative urgency was similarly calculated. Next, various items were arranged in three classes: first, those that were vitally necessary; second, those that were also desirable; and third, those that were interesting but not essential. Then, the cost of each item was calculated and checked from various sources, so that a definite budget could be determined for each year and for each five-year period. Five-year periods were used so as to allow for an adjustment of the items at the beginning of each period.

Ford lists many reasons why a long-term budgeted city plan program should be an excellent investment for any city.[4] Those that have a bearing on this particular problem follow:

1. Should give the taxpayer as well as the official a much better opportunity to see just what he is getting for his taxes.

2. Makes it possible to determine for many years ahead what improvements can be handled on the pay-as-you-go principle and what will have to be handled by bond issues.

3. Shows how to avoid deferring vitally needed improvements, as is often done just to keep taxes down.

4. Can readily provide an adjustable margin for speeding up needed public improvements so as to give employment for those out of work in times of stress.

5. Shows how to avoid the extravagance of big bond issues which may be voted in the whipped-up enthusiasm of the moment.

6. Indicates possibilities of picking up, whenever they are particularly cheap, properties which will be eventually needed for public improvements.

7. Permits a coördination of the city plan with the county and school programs, all with the corresponding avoidance of overlapping and an adjustment of the tax rates.

8. Should improve the city's credit and thus lower interest rates, debt service, and taxes.

9. Begets public confidence in the administration and inspires an honest civic pride in the businesslikeness of the city government.

Mount Kisco, New York, an Example of Long-Term Financial Planning

Mount Kisco, Westchester county, New York, is a notable example of how a small community may plan a long-term budgetary program and thus finance its improvements largely on the pay-as-you-go-plan.[5] Mount Kisco is a village with a population less than 5,000. Its long-term program provides for all public improvements from 1929 to 1950. The total expenditure for public improvements is $2,432,250. Only $300,000 of new bonds will be necessary, the balance being paid on the pay-as-you-go principle. By the end of the period both the new and existing bonds, $737,335, will be almost entirely liquidated. In fact, new bonds will be entirely wiped out by 1955, old bonds by 1954. Also, by the end of the period the borrowing capacity of the village will be $1,670,000 and the total borrowing margin will be over $1,500,000. All of this will be accomplished without any increase in the tax rate, either village or school, and with no increase in the assessed valuation per capita.

The period 1929 to 1950 is divided into five smaller periods: 1929–1930; 1931–1935; 1936–1940; 1941–1945; 1946–1950. It is interesting to note how carefully the whole program has been woven, in order that the trend of expenditures may be fairly even, increasing with the increase in assessed valuation of property. A new fire station will be built during the first period; a village hall during the second period; a high school the third; a library the fourth; and an incinerator the fifth. Railroad crossings will be eliminated during two of the periods. Parks and playfields will be built during three periods. Streets will be built during four of the periods. Provision is made for incidental paving and sewers during the entire 21 years.

Rye, New York, Plans for 20 Years

The budgeted program of Rye, New York, population 8,025, calls for an expenditure of $3,079,900 between 1929 and 1950.[6] Following a bond issue of $300,000 in 1930, the village will pay about half of the cost for bond issues and half from current revenues for about ten years. By 1940 at the least, improvements can be financed entirely on the pay-as-you-go method. In all, $2,424,200, or about four fifths of the total, will be paid from current revenue. Total bonds issued will amount to $700,000. If the maximum pay-as-you-go policy is followed, it is entirely feasible to wipe out most of the village debt by 1950, including $1,402,100 outstanding bonds, with all desirable public improvements paid for in full and at the same time slightly reduce the tax rate. However, the ratio of assessed to actual property valuation will be increased from 67 to nearly 80 per cent at the initiation of the plan.

The list of improvements to be provided includes two fire stations, a village hall, incinerator, streets, paving, sewers, parks, and playfields. Schools are not included in the program because they are under the administration of the town and paid for out of the town tax rate. The school program calls for the issuing of $664,000 in bonds between 1931 and 1945. According to the village budgeted program, these bonds can be taken care of with little or no increase in the school tax as the increase in the ratio between assessed valuation and real valuation, plus the increase in real values, will probably take care of the additional debt service. Even by including the school bonds in Rye's program almost two thirds of the entire expenditures can be financed on the pay-as-you-go plan.

It is evident from these examples that a carefully planned long-term budgeted program of all municipal improvements, including schools, may, even in small communities, allow the pay-as-you-go plan to be used either in full or in part, with little or no increase in taxation.

THE FILM AS AN EDUCATIONAL INVESTMENT

The film should devote itself primarily to enabling the pupils to get a clear-cut and correct notion of the physical aspect of the world. This is its immediate function. The material which is to be included in the film should be selected with this in view. The ultimate purpose of securing a clear-cut, concrete idea, of course, is to promote exactness and soundness in thinking. The material which is presented to the pupil, then, should be that material which is necessary in order to furnish him with this foundation. The selection of material, and the manner and context in which it is presented, must be determined by the ultimate purpose. This does not mean, however, that an attempt should be made to distort the films from their natural purpose, and make them into a means of teaching abstractions directly. Mankind has invented an instrument of abstract thought which is vastly superior to the use of objects, or pictures of objects. This instrument is language. It is not the business of the films to supplant language. It is their business to give the pupils such direct experience as will give language rich and clear-cut meaning.—Thomas E. Finegan.

[1] This is not an argument that school cities should be dependent. Coöperation can be obtained without dependency.

[2] Rightor, C. E., *The Preparation of a Long-Term Financial Program*, Municipal Administration Service, New York City, p. 15.

[3] Ford, George B., "Long Term Budgeting and the City Plan," *National Municipal Review*, Vol. 17, No. 8, Aug., 1928, p. 468.

[4] Ford, George B., "A Budgeted City Plan Program Reduces Waste," National Conference on City Planning, 1929, p. 6 f.

[5] Mount Kisco, Westchester County, N. Y., Village Plan and Budgeted Program of Public Improvements, 1929–1950 (unpublished).

[6] Rye, Westchester County, N. Y., Village Plan and Budgeted Program of Public Improvements, 1929–1950.

THE AMERICAN
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EDITORS:

WM. GEO. BRUCE WM. C. BRUCE

American Education and Taxation Methods

IT is becoming increasingly evident that if the high standards upon which this country aims to maintain its system of popular education are to continue, the sources of financial support must come under more careful scrutiny. In brief, the subject of taxation must receive greater attention.

The economic disturbance which has befallen the country reveals in more glaring outline than ever before the shortcomings of the present property tax. Property valuations throughout the country have declined to an enormous degree, which in turn is reflected in a reduced tax yield. The result is that those in control of public expenditures must cut corners in order to make both ends meet.

While reasonable economy is at all times in order it follows, too, that there is a tendency in times of depression to carry the retrenchment idea to the point where the impairment of the public service comes into serious question. In the field of school administration this problem has caused grave concern. Boards of education have worried over school budgets in trying to maintain standards of efficiency in the face of a diminished income.

All this carries us back to the sources of revenue. Is the system upon which such revenue is produced at once just, equitable, and efficient? Is the disparity between an up-to-date school budget on the one hand and the tax income on the other due to an educational overexpansion, or to a defective revenue-producing system?

An inquiry into this phase of the subject will soon reveal the fact that present educational standards are the results of an evolution which not only represent the demands of the American people, but also reflect their aspirations and ideals in the training of the rising generation. There cannot, therefore, be any thought, that the schools are overexpanded and hence cost too much money. The trouble lies the other way.

"Official commissions or legislative committees in more than half the states have been or are now investigating the systems of taxation," said Prof. George A. Graham, of Princeton University, in a recent discussion of the subject. "Seventeen commissions have reported in the past fifteen months. The forces behind the investigations are chiefly dissatisfaction with the general property tax and objection of real estate owners to their present tax burdens. No committee has reported without recording some defect in the administration of the tax on property; nor has any committee attempted to defend a tax on general property. If there is any significance in unanimity of official opinion, the general property tax is doomed."

To this statement may be added the outstanding fact that the United States is the last of the great countries of the world to cling to an outworn and obsolete property-tax system. While the failure of the system is nothing new to the students of taxation, the modern trend of things is only making that failure more apparent and tangible. The tremendous increase in the surrender of property holdings for unpaid taxes, throughout the United States, thus transferring enormous land areas from private to public ownership, is by no means a healthy situation. It notes the fact that property is asked to carry a burden which it no longer can bear.

A discussion designed to discover a method of taxation that is equitable, and at the same time efficient, logically leads to a consideration of the income tax. Prof. Graham, in continuing his observations says: "The most striking feature of the investigations, however, is not the destined demise of the tax on general property; it is rather the general indorsement of a tax on income."

Educators who have concerned themselves with the problem of school support, and have entered upon a study of the subject of taxation, have invariably come to recognize the income tax as an instrument that affords the desired solution. The lawmakers of the several states have been slow in accepting the ability to pay principle as the basis for producing revenue. And yet several states, as well as the national government, have adopted the principle and have demonstrated, both in application and results, that it is equitable, serviceable, and efficient.

School Administration and the Business Depression

THE economic disturbance which has afflicted the country is reflected in a reduced income for governmental purposes. The decline in property values logically results in a reduced tax yield, which raises the question of an increased tax rate or a reduced budget of expenditures.

Thus school administrators have been faced with the dilemma of a school budget that must be met, and a diminished income with which to meet it. The disparity between the two has called for extreme caution and circumspection. In other words, under the circumstances school administration calls for the highest type of efficiency.

An Ohio editor, in discussing an impending school election, says: "During the coming year the school systems of the state will be faced with problems more serious than any known for many years. It is highly important that some of the community's best leaders volunteer for service on the board of education. It is equally important that candidates for the position who do not have the welfare of the school system as a whole at heart withdraw. The community will need its best leaders directing the affairs of its school system this year of all years, or the outcome will be disheartening."

All of which means that when the ship sails in placid waters no expert seamanship is necessary. When the storm, however, is on, the captain must be on the bridge day and night, watch wind and waves, and protect his craft against the dangers that surround him.

The school authorities, in the ordinary course of their administrative service, constantly have policies, problems and projects to deal with, which in time of financial stress and upheaval must be approached in the light of exceptional conditions and circumstances. The school system must be carried on with all the momentum and efficiency, and the adherence to high standards that has characterized it in fair weather. There must be a firm resistance to every form of false economy, to retrenchments which are not necessary and which lower standards and impair efficiency.

There is no doubt that in many communities problems have arisen in the administration of the schools that call for clear vision as to the task in hand, a firm grasp upon a combination of disturbing circumstances, and executive ability of a high order.

The circumspect and calm school administrator does not allow himself to be stampeded by a temporary flurry, takes all the essential factors into account, and guides the educational ship through a passing storm with safety and security.

The Contest Mania in School Activities

THE world admires distinctive achievement. To penetrate the unknown, to do the picturesque, the dramatic, or adventurous thing, or to demonstrate the impossible as possible, commands immediate attention.

It invites the spirit of contest which prompts the one to outdo the other. The man who jumps across an ocean in an airplane is followed by the man who attempts a speedier jump; the flier who circles the globe is followed by another flier who attempts to beat all previous records.

The same interest which is centered upon a horse race, a boxing bout, or a football match, asserts itself in aëro flights, political campaigns, and stock-market operations. Somebody is expected to win, somebody must lose.

It is therefore only natural that the spirit of contest should find its way into the school activities of the country. Such contests have their value. No one questions that. But someone may also note the shortcomings and drawbacks which attend the excessive indulgence of the contest idea and sound a word of caution in the direction of a more rational approach to the subject.

In the field of extracurricular activities great progress has been made. There are observers, however, who see something of the extreme, the illogical, and the unwise in the form and extent that these activities have assumed. They reprimand the educator who holds that "there is more value when it comes to character training and citizenship in the extracurricular program than in the curricular."

"If that is true," says Supt. L. H. Petit, of Chanute, Kansas, "then, as educational leaders we have been sadly and grossly deceiving our public. We ought to cut out the curricular altogether, admit our failure, and run the school on the extracurricular program entirely."

Superintendent Petit demonstrates that the contest idea has gone into every phase of school activity, and then asks the pertinent question: "Just what does a school contest decide, if it decides anything? The more we see of contests and the more we have to do with them, the more we are convinced that the answer is 'nothing.'"

But Superintendent Petit goes deeper into the merits of the subject when he says: "School contests as usually conducted are undemocratic. They represent a selective process. They are not for the many, but for the few. The ideals of our American institutions of education set up an equal opportunity for every boy and girl. The ideals of a contest set up the coaching of the few at the expense of the many. The contest idea is opposed to our philosophy of education."

The tendency of the hour is to enter upon, to weigh, measure and check up all along the line, from extracurricular to curricular activities, with a view of eliminating the superfluous, the frivolous, and the useless. If there is a tendency on the one hand to trim and to economize on school costs there is even a stronger trend toward an emphasis upon things that spell efficiency of the service within rather than that outside of the American school system.

Elective Boards of Education and Politics

THE proposal of a change from an appointive to an elective board of education usually raises the cry that the schools are being plunged into politics. The same cry, oddly enough, is raised when the suggestion is made that a change from the elective to the appointive system be made. In either case, upon closer examination the objection proves groundless. An undesirable form of politics may develop with either system.

The appointive system usually means that the chief executive of the municipality selects the members of the board of education. In the elective system the citizenship makes the choice. In either case someone may play the game of politics. Which system is preferable? Which is free from political manipulation?

At this point it is well to remember that primarily the adoption of the elective system in place of the appointive, or a change from the appointive to the elective, depends upon the size of the community. In the smaller community, where the candidates for school-board honors are likely to be generally known, the elective system becomes ideal. In the medium-sized cities it has worked out reasonably well. In the larger cities where general citizens' committees have concerned themselves in the campaign, and have eliminated the undesirable candidates from the competition, good results have been attained.

It has been believed that when a city has reached a certain size, the elective system is no longer practical and that the appointive system is most feasible. But, the two largest cities, New York and Chicago, adhering to the appointive system, do not give proof that the system is ideal. While Mayor Walker, of New York City, and his predecessors, have provided that city with an excellent board of education, the late Mayor Thompson, of Chicago, played the political game with a vengeance.

The creation of a board of education, be it under the elective or the appointive system, rests primarily upon public sentiment. The mayor who has it in his power to appoint a board of education will proceed with caution and care when he knows that the public exacts character and efficiency. He is guided by public sentiment.

The elective board of education even more so, is a reflex of the community sentiment. Where high standards prevail, the mediocre does not find acceptance. The citizen who is sincere in his desire for an efficient school system will cast his vote at school elections with discriminating care.

It finally remains to be said that no particular system is entirely free from political manipulation, if the public mind is not keyed up to its own sense of duty. The community usually can have the kind of board of education it wants, and if it does not get what it ought to have, it is because the public has neglected its own duty in voicing its wants.

Raising and Spending the School Tax Dollar

THE expenditures for public elementary, secondary, and higher education in the United States run up to a total of $2,450,000,000 annually. The raising of this huge sum of money as well as its expenditure involves considerations which suggest a thorough mastery of the school-finance problem in all its ramifications.

In recognition of this thought the Congress of the United States has appropriated the sum of $250,000 for the purpose of making a comprehensive survey of the school-finance situation of the United States. The work, which will be in charge of Dr. William John Cooper, United States Commissioner of Education, is now under way, and will be completed in four years' time.

The action of the Federal Government in assuming this task is commendable. The findings of the survey will prove of inestimable service to state legislatures, boards of education, and school administrators generally. The problem of school finance has in recent years become more acute because of the tremendous expansion on the one hand which has attended educational endeavor, and on the other, because of the disturbed economic condition of the country.

The American people are making greater demands upon the agencies of learning than ever before, and the educators with a vision and enterprise that truly exemplifies the American spirit, have met the demand in an eloquent manner. To merely hold, however, that the school dollar has always been generously provided and economically expended, by no means disposes on the whole the school-finance problem.

The proposed survey must not only satisfy itself as to the travels which the school dollar engages in and the service that it renders to the cause of education, but it must also familiarize itself with the sources whence the dollar has come. In brief, the sources of revenue are quite as worthy of analysis and study as are the budgets through which that revenue is expended.

Commissioner Cooper has a gigantic task before him, and one which may mean much to the nation's future in the field of popular education. In the knowledge that he is an official who has a proper conception of his office is found the assurance that he will bring to proposed survey educators and economists fully capable of making the same.

Some School-Building-Contract Considerations

THE assumption prevails that, in exacting a surety bond at the hands of the contractor in the construction of a new school building, the board of education is amply secured. That assumption is usually correct.

There are considerations, however, which should be borne in mind as to the question of subcontractors and materialmen. The question which becomes one of immediate concern is whether the bond submitted covers the interests of the subcontractors as well.

There is a growing tendency for contractors to bid on a building job agreeing to do the whole job and thus relieve the contract giver from dealing with subcontractors. The argument put forth in behalf of this method is that it secures a better coördination of the several divisions of the construction labors, brings all such labors under some unified control, and therefore makes for both expedition and economy.

Ordinarily a board of education awarding a building contract is not concerned about the relations which may exist between contractor and subcontractor, but when these affect the ultimate costs they deserve consideration. The contractor who agrees to construct a building is more or less dependent upon the subcontractors; namely, those who perform only a fraction of the job or who supply the material.

Ordinary precaution must, therefore, also concern itself with the kind of bond the principal contractor submits. While the subcontractors and the materialmen deserve protection, not only as far as their individual interests are concerned, but also because such protection may involve the ultimate economies involved.

Panic Hits the Bond Market[1]

Harold F. Clark, Ph. D., New York City

During the last few days of September and the first days of October the bond market was in a condition approaching panic. Interest rates on school bonds had been rising slowly for almost four months. But the increase had not been unduly large. Net interest rate had risen from 4.05 per cent in May to 4.21 per cent in August. During these four months there was a net advance of 16 points. This was not unusual or unexpected considering the violent fluctuations in the stock market during that period.

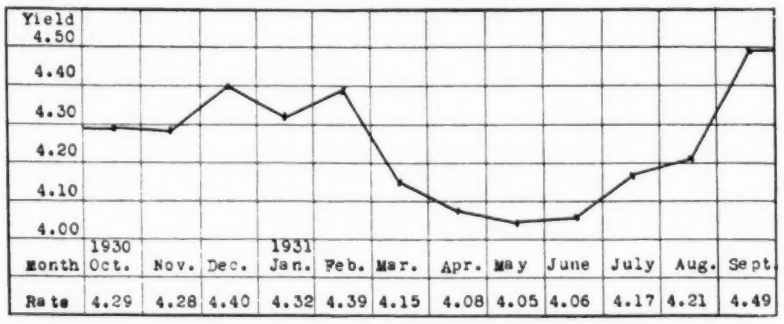

TABLE I. AVERAGE PRICE OF ALL SCHOOL BONDS SOLD DURING THE MONTH

However, the end of September introduced an entirely new element. Financial conditions in England had been slowly getting worse for some time. But almost without warning the world was suddenly informed that England had abandoned the gold standard, at least temporarily. The Scandinavian countries followed almost immediately. The shock on world security prices was unprecedented. In thirty days' time more than one quarter of the total value of all stock exchange securities was wiped out. Certain types of securities reached a level where there were almost no bids at any price. The stocks and bonds of our greatest industrial and financial corporations suffered with the rest.

A condition that can only be adequately described by the word "panic" prevailed. Sound securities were sacrificed almost regardless of what they would bring. Obviously, no bonds could stand and maintain their prices under such circumstances, with the result that we find one of the most sensational rises in the interest rates on school bonds in recent years. Our net interest rate on all school bonds sold advanced from 4.21 per cent in August to 4.49 per cent in September. When it is remembered that much of September was not affected by these unfortunate conditions, it may readily be seen what happened to bond prices toward the end of the month. Conditions became so bad that several very large bond issues were entirely withdrawn. This was, obviously, the sensible action on the part of any school district.

TABLE II. Amount and Yield of Bond Issues

1. School bonds during the month[1] of September	$ 5,347,000
2. All municipal securities sold during the year (to date)	1,137,000,000
3. All school bonds outstanding (estimated)	2,270,000,000
4. Average yield of all school bonds outstanding (estimated)	4.61%
5. Yield of school bonds of ten large cities	4.22%
6. Yield of United States long-term bonds (Quotation the middle of October)	3.37%

[1]The monthly total of school bonds does not include all the bonds issued in the month, due to the difficulty of obtaining the yield on some of the issues.

These sensational changes provided perfect proof of the necessity of any school board being able to suddenly change its plans in regard to bond issues. Any school district that went ahead and sold bonds at the end of September and the first of October was needlessly sacrificing public money. As one of the most conservative financial journals expressed the situation — "At the moment, the bond market is in the grip of hysteria so extreme that the soundest of all securities are being sacrificed at prices which bear no relation whatever to value." Seemingly, the day is past, at least for a long time in the future, when the dates for bond sales can be set long in advance and rigidly adhered to regardless of financial conditions.

To show the extent to which securities were sacrificed, it is only necessary to look at the fall in the price of even the best securities in the world, United States Government bonds. It is an interesting phenomenon that in periods of relatively mild fear, people will shift from industrial securities to government bonds and actually cause a rise in the price of government securities. When this fear reaches the unreasoning stage of late September, government securities are sacrificed along with everything else. Fortunately, later events seem to be showing that such selling of securities was quite uncalled for. It is far too early to predict what will be even the near term effects of recent sensational developments, but there seems to be good reason to think the financial community will settle down to some reasonable solution of its difficulties.

TABLE III. Bond Sales and Rates[1]

Year	*School*[2]	*Municipal*[2]	*All Public and Private*[2]	*Year*	*Municipal*
1929	230*	1.431	10.194*	1929	4.67*
1928	218	1.414	8.050	1928	4.45
1927	266	1.509	7.776	1927	4.49
1926	260	1.365	6.344	1926	4.61
1925	323	1.399	6.223	1925	4.58
1924	288	1.398	5.593	1924	4.26
1923	206	1.063	4.303	1923	4.303
1922	237	1.101	4.313	1922	4.81
1921	215	1.208	3.576	1921	5.18
1920	130	683	3.634	1920	5.12
1919	103	691	3.588	1919	5.04
1918	41	296	14.368	1918	4.90
1917	60	451	9.984	1917	4.58
1916	70	457	5.032	1916	4.18
1915	81	498	5.275	1915	4.58
1914	42	320	2.400	1914	4.38

[1]By special permission based upon sales reported by the Commercial and Financial Chronicle.
[2]Units $1.000,000.
*Not final.

There are good reasons to think that at least in the near future long-term bond interest rates will be substantially higher than they have been in the recent past. On October 8 the New York Federal Reserve Bank raised its rediscount rate from the abnormally low level of 1½ per cent to 2½ per cent. This will tend to at least slightly raise interest rates all along the line.

Hundreds of millions of dollars have been tied up in real estate mortgages that were held at the banks and could not be disposed of. The formation of the National Credit Corporation announced by President Hoover in the early part of October should go far toward relieving the situation. If this plan is carried through in an adequate manner it should release very large sums of money for other purposes. The effect of this on the whole should be to make additional money available and should indicate at least reasonable interest rates for bonds. However, it may be some time before the levels reached in the spring and early summer are approached again. But with the enormous reserves of capital available in the United States there is no reason why over a long period bond prices should not again start toward lower levels. In the meantime, any school board contemplating issuing bonds should follow the market with the greatest care and caution and be prepared to change its plans at a moment's notice.

TABLE IV. Average Yield of Long-Term Federal Government Bonds[1]

Month	*Rate*	*Year*	*Rate %*
1931		1930	3.397
Oct.	3.40*	1929	3.64D
Sept.	3.39*	1928	3.437
Aug.	3.34	1927	3.464
July	3.32	1926	3.544
June	3.30	1925	3.797
May	3.31	1924	4.010
April	3.38	1923	4.298
Mar.	3.39	1922	4.301
Feb.	3.40		
Jan.	3.33		
1930			
Dec.	3.34		
Nov.	3.32		

[1]Taken from Federal Reserve Bulletin.
*Not final.

As would be expected, the total school-bond sales in September showed a decided contraction even from the abnormally low level of August. The same thing is true of total municipal sales. The total of all municipal sales during the first nine months of the year was approaching the largest total on record. But the heavy part of the sales were made early in the year.

Table IV shows the continued rise in interest rates of Federal Government bonds. The sharp break in the price of bonds at the end of September carried the rate temporarily to a much higher level. There seemed to be no adequate reasons for thinking that government bonds will not again approach the levels of recent months.

TABLE V. Security Prices and Yields[1]

Date	*Average Price of 404 Stocks (1926 Average=100)*	*Average of 60 Bonds*	*Average Yield of 60 High-Grade Bonds*
1931			
Oct.	64.7*	90.7*	5.05*
Sept.	83.7*	95.6*	4.64*
Aug.	95.4	98.5	4.50
July	98.2	99.4	4.44
June	95.1	99.4	4.45
May	98.0	99.7	4.43
Feb.	119.8	99.4	4.44
Jan.	112.3	99.6	4.43
1930			
Dec.	109.4	97.8	4.55
Nov.	116.7	99.1	4.46

[1]As reported by Standard Statistics Company, Inc. Used by special permission.
*Not final.

Table V tells the same story of decrease in security prices which has been going on for many months. With minor fluctuations throughout the entire past year, the general trend of security prices has been down. In no month, however, did the drop approach the almost perpendicular fall of September. The average price of all securities as given in the table stood the first of September at 94.0. On September 30 the average price of these same stocks had declined to 67. This was a loss of well over 25 per cent of their total value during the month. The prices of bonds showed the same trend, although not quite to such a disastrous degree. Our index of the price of bonds stood slightly under 100 at the beginning of September. At the end of the month it dropped almost to 90. To have the average price of the highest-grade bonds dropping 10 per cent in one month is a remarkable occurrence. Correspondingly, of course, we have a great increase in yield moving up from about 4½ per cent to approximately 5 per cent.

TABLE VI. Revised Index Number of Wholesale Price
(United States Bureau of Labor Statistics. 1926=100)

Month	*All Commodities*	*Building Materials*	*Year*	*All Commodities*	*Building Materials*
1931			1930	86.3	90.3
Oct.	66.2*	72.1*	1929	96.5	104.0
Sept.	67.3*	74.7*	1928	97.7	93.7
Aug.	70.2	75.4	1927	95.4	93.3
July	70.0	75.8	1926	100.0	100.0
June	70.0	77.5	1925	103.5	101.7
May	71.3	78.4*	1924	98.1	102.3
Apr.	73.3	80.9			
Mar.	74.5	81.9			
Feb.	75.5	81.8			
Jan.	77.0	82.9			
1930					
Dec.	78.4	84.4			
Nov.	80.4	85.8			

*Not final.

Table VI shows very clearly that the long and drastic decline in the price of all commodities has not yet been finished. Until commodity prices begin to stabilize, it is at least doubtful how much permanent improvement can be expected in the general economic situation. School boards should follow all prices very closely.

WASHINGTON CORRESPONDENCE

A. C. Monahan, Formerly U. S. Bureau of Education

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Program of Department of Superintendence Meeting, February, 1932

A tentative general program for the annual meeting of the Department of Superintendence, which will be held in Washington, D. C., February 20 to 25, has been prepared by the officials of the organization. The convention theme is: "Education, our Guide, and our Safeguard, and one of the Chief Sources of our Spiritual Life, our Cultural Life, and our Material Power."

The meeting opens on Saturday, February 20, with an official inspection of the educational and commercial exhibits. These will be in the Washington Auditorium and will occupy the entire building both main floor and basement. There will be no meetings held in the building, but the registration booths and the Department Headquarters will be there. The general sessions will be held in the new auditorium of the D. A. R. building, a block away. Most of the section meetings will be held in neighboring halls within three or four blocks, including the ballrooms in the Washington and the Willard Hotels, although some of the affiliated organizations will meet in the Wardaman Park Hotel, and the Central High School auditorium.

Much of the program centers about the George Washington Bicentennial Celebration, which starts on Monday, February 22. On this day the entire group of superintendents will go in a body to Mt. Vernon, to take part in the exercises there. The meeting will close on Thursday evening with an historical pageant, arranged under the auspices of the National Bicentennial Commission.

A Sunday evening general session of the department will consider "Spiritual and Moral Values in Education." On other days, the topics will be: "Financing Public Education," "Education as a Source of Spiritual Cultural Life," and "Education as a National Issue."

The amount of space available for the commercial exhibits is about the same as in past years.

Retirement of Henry R. Evans, U. S. Office of Education

One of the well-known members of the staff of the U. S. Office of Education, Henry Ridgely Evans, Litt. D. retired on November 7, 1931, after 44 years of service in the bureau. For the past several years he had been assistant editor of the Office, serving as acting editor from July 30, 1929, to October 15, 1930, following the death of James Boykin, and until the appointment of William D. Boutwell as chief of the editorial division of the bureau.

Dr. Evans, a native of Baltimore, Md., was educated at Georgetown University, George Washington University, and the University of Maryland. He was graduated from the Law school of the latter institution in 1883. In 1914, the University of Maryland conferred upon him the degree of doctor of letters, in recognition of his literary work.

HENRY RIDGELY EVANS, Litt.D.,
who retires this month from the position of Assistant Editor, U. S. Office of Education, after 44 years and 2 months of continuous service in this office.

Dr. Evans entered the U. S. Office of Education on May 8, 1887, as an assistant in the editorial division. For two years he was private secretary of Dr. William T. Harris, commissioner of education, and for several years reference clerk and bibliographer in the bureau library. He was then returned to the editorial division as assistant editor, a position he had held until the present time, except during the 14 months he was acting chief of the division.

Changes in District of Columbia Administrative Personnel

Two changes worthy of note in the office of the superintendent of schools, Dr. Frank W. Ballou, are the appointments of Dr. Ellis Haworth as head of the department of science, and Miss Mildred Dean as head of the department of Latin. The position held by Dr. Haworth is a new one, taking the place of two former positions, a department of chemistry and biology and a department of physics.

Two other changes include the appointment of Dr. Julia Hahn of San Francisco, as supervisor of one of the District of Columbia school divisions, and that of Miss I. M. Lind, as supervising principal of the Brightwood Demonstration School, operated for the benefit of students preparing to teach at the Wilson Teachers College. Dr. Hahn had served for the past several years as director of primary education for the city of San Francisco. She has had experience in teaching and supervision in Indiana, Minnesota, and New Orleans, as well as an instructor in university departments of education.

Use of Motion-Picture Films in Washington Schools

Regulations relative to the use of motion-picture films in the schools have been sent to school principals who are held responsible for their enforcement. Projectors using inflammable films must be placed in an approved booth and operated by a licensed operator only. Stationary moving-picture machines, using an incandescent lamp as a source of light and a noninflammable film, may be used without a booth and by an unlicensed operator. As an aid to principals, all 16 mm. film is noninflammable and noninflammable 35 mm. film is marked on the margin "Safety Film." Inflammable film is marked "Nitrate of Cellulose."

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CHICAGO CORRESPONDENCE

With stringent retrenchments being put into effect throughout the school system, and with salary cuts imminent, the teaching groups are getting aroused about the relative remuneration of teaching and nonteaching employees. The president of the Chicago principals' club has published an article, showing an analysis of wages paid to engineer-custodians and to principals. Among other things, he shows that the average annual wage for the engineer-custodians of the 49 junior and senior high schools is higher than the average annual salary of the principals of these 49 schools. Likewise, there are 97 elementary schools in which the principal receives less pay than the engineer.

A committee of the principals' club appeared before the "governor's commission" to urge financial relief for the schools. A quotation from the committee's report is as follows:

"We believe that in Chicago educational funds have not been properly distributed.

"There has been a tremendous increase in the amount spent for nonteaching service, while teachers have been compelled to lower their standards of living to cope with the high prices during the recent period of prosperity. Nonteaching groups' salaries were raised over a period of fifteen years from 100 to 300 per cent, while teaching groups were raised from 35 to 66 per cent. As a result, teachers are now among the lowest paid of board-of-education employees. Janitors start at a yearly salary of $1,540, while teachers start at a yearly salary of $1,500. The maximum salary of principals of elementary schools is $4,800, while the maximum salary of engineers of elementary schools is $5,340. In 120 Chicago schools, engineers are paid a higher salary than the principals in the same buildings. Painters, plumbers, glaziers, and carpenters, are paid a higher per diem wage ($13.60) than the maximum salary paid the regular elementary teacher ($12.50). A janitress, with no preparation, starts with a salary ($1,500) equal to that of a beginning elementary teacher.

"We believe that this is a wrong emphasis and should be corrected."

Supt. William J. Bogan was made a commander of the Order of the Crown of Italy, in recognition of his work in promoting the teaching of Italian in the city schools and for his aid in founding Madonna Center, an Italian community center in Chicago. Acting for his government, Giuseppe Castruccio, the Chicago consul and an ace of the flying forces of Italy during the world war, decorated Mr. Bogan with the ribbon and cross, at a banquet of junior- and senior-high-school principals, held at the Palmer House, on October 3.

Superintendent Bogan has started a "Progressive" school, experimental in nature. The principal of this school, the Lewis-Champlin elementary school, is Edna R. Meyers, formerly on the staff of the University of Chicago Laboratory Schools. Assistant Superintendent James E. McDade has direct supervision.

The Chicago school people are pleased with the new school, and, although it is only a few months old, laymen are showing considerable interest in it. Following is a comment which appeared in the *Chicago Daily News*:

"There are signs that a new chapter is beginning in the evolution of elementary education in the public schools. Its central thought is that the child's education should be the stimulated but unforced product of his normal contacts and spontaneous interests and that his own activities should be the major factor in the educational process.

"So it is proposed that in the first two grades the immediate environment of the children shall furnish the interest center — the familiar things of the neighborhood, such as his home, the fire station, the corner grocery, the school. Play activity will be developed from these interests. When a child is playing, he is about his own business, and it is as important and as essential to him at that age as what we may call work is to us.

"In the third grade the interest center will be transportation — automobile, surface car, elevated and train; in the fourth grade, food; in the fifth, Chicago as it is today; and in the sixth — a long jump — ancient Egypt. The activity program of each grade will be developed out of its peculiar interest. In the sixth grade, ancient Egypt — cradle of civilization — will be approached from some point of familiar understanding.

"Manifestly, this program is not one concerned chiefly with imparting information but with developing thought, imagination, intelligent curiosity, spontaneous desire to know more. Reading, writing, and arithmetic — essential tool studies — should fit into this program without violence."

Enrollment data for September, 1931, showed a tremendous increase in pupil growth of the Chicago public schools over the figures of September, 1930; in fact, twice as much as in a normal year. On top of that, there is not only a huge seat shortage, but also a money shortage making it very difficult to remedy the troubles. The superintendent's staff and the staff of the architect of the board of education have conferred from time to time about methods of reducing school-building costs, by simpler architectural design, by substituting cheaper materials throughout the buildings, by eliminating certain features, and other economies. In view of these facts it is interesting to discover a report of a former superintendent of schools, William H. Wells, written before the Civil War, and sent to the board of education on March 20, 1858. At that time Chicago had a population of less than 100,000.

"The most difficult problem which the city has to solve in relation to the public schools is to find how sufficient room can be provided for the scholars from the present resources of the school-tax fund.

"After having exhausted the resources of the school treasury, we find that the schools are still crowded almost to suffocation, and the cry for room is louder than ever before.

"What is to be done? Our city ordinances provide that free instruction shall be provided for all the children residing within the limits of the city, who are over the age of 5 years and who desire to attend public schools.

"The question arises in view of these facts, whether it is not possible to construct our schoolhouses on a more economical plan. It is possible that something may be saved by adopting a still plainer style of architecture and employing cheaper materials; but if this rule is applied to a much greater extent, I fear that we shall receive few thanks from posterity for the buildings which we hand down to them.

School Finance and Taxation

NEW YORK CITY SPENDS 86 PER CENT OF ITS EXPENDITURES FOR INSTRUCTION PURPOSES

Of all the expenditures for educational purposes, New York City devotes a larger percentage to the instruction of its children than any of the 52 American cities of 100,000 or more population, according to the findings of a recent nation-wide survey made by the U. S. Office of Education at Washington. New York City devotes 9.4 per cent more to the actual instruction of the school children than the average amount spent by the same 52 cities.

In New York City, fully 86 per cent of the total educational expenditures go toward the actual instruction of the school children. The average of the 52 cities whose costs were surveyed by the Office of Education is 76.6 per cent for instruction purposes.

Fort Worth, Texas, which is next to New York City in expenditures devoted to instruction purposes, devotes 85.4 per cent to actual instruction. Included among the 52 cities in the survey, in addition to Forth Worth, are Chicago, with 71.3 per cent; Philadelphia, with 77.6 per cent; Los Angeles, with 79.8 per cent; St. Louis, with 73.8 per cent; Boston, with 73.8 per cent; Pittsburgh, with 76 per cent; and Baltimore, with 81 per cent.

The per capita cost of the day elementary and junior high schools in New York City, based on an attendance of 815,000 pupils, is $102.84 a year, which is a slight increase over the previous year. The per capita cost of the day high schools is $170.93, which is a decrease from that of the previous year. The total cost of the school plant, including cost of sites, buildings, and equipment, is $447,274,619, or an increase of 7 per cent over the previous year.

BOSTON'S NONRESIDENT TUITION FEES

In fixing the tuition of nonresident pupils for 1931–32 the Boston school committee (school board) estimated all costs, including charges for repairs and alterations, and expenditures made by the department of school buildings. The rates thus established are as follows:

Teachers College, per year	$359.00
Latin and High Schools, per year	168.00
Elementary and Intermediate Schools, per year	114.00
Speech Improvement Classes, per hour of instruction	.14
Boston Clerical School, per year	179.00
Boston Disciplinary Day School, per year	350.00
Day School for Immigrants, per hour of instruction	.13
Recreation Handicraft Classes, per hour of instruction	.09
Training School for Teachers of Mechanic Arts, per hour of instruction	.34
Summer Review High Schools, per term	14.00
Summer Review Intermediate and Elementary Schools, per term	7.50
Vacation Schools, per term	7.50
Evening High Schools, per term	25.00
Evening Elementary Schools, per term	30.00
Evening School Extension, per term	8.00
Lip-Reading Classes, per hour of instruction	.22
Lip-Reading Classes in Evening Elementary Schools, per session	.55

THIRTY-FIVE MILLION DOLLARS EXPENDED ANNUALLY FOR TRANSPORTATION PURPOSES

The National Association of Motor Bus Operators, in a recent report, showed that more than 1,500,000 persons are dependent upon school busses for transportation in the rural sections each day during the school year, and that $35,000,000 is expended annually for this service.

The school bus has brought city schools to the rural sections, according to the association, and in addition it has brought great advantages to the children in consolidated schools. The one-room school, with its limited advantages, is fast disappearing, and in its place will be found fine buildings with all the advantages of the city schools.

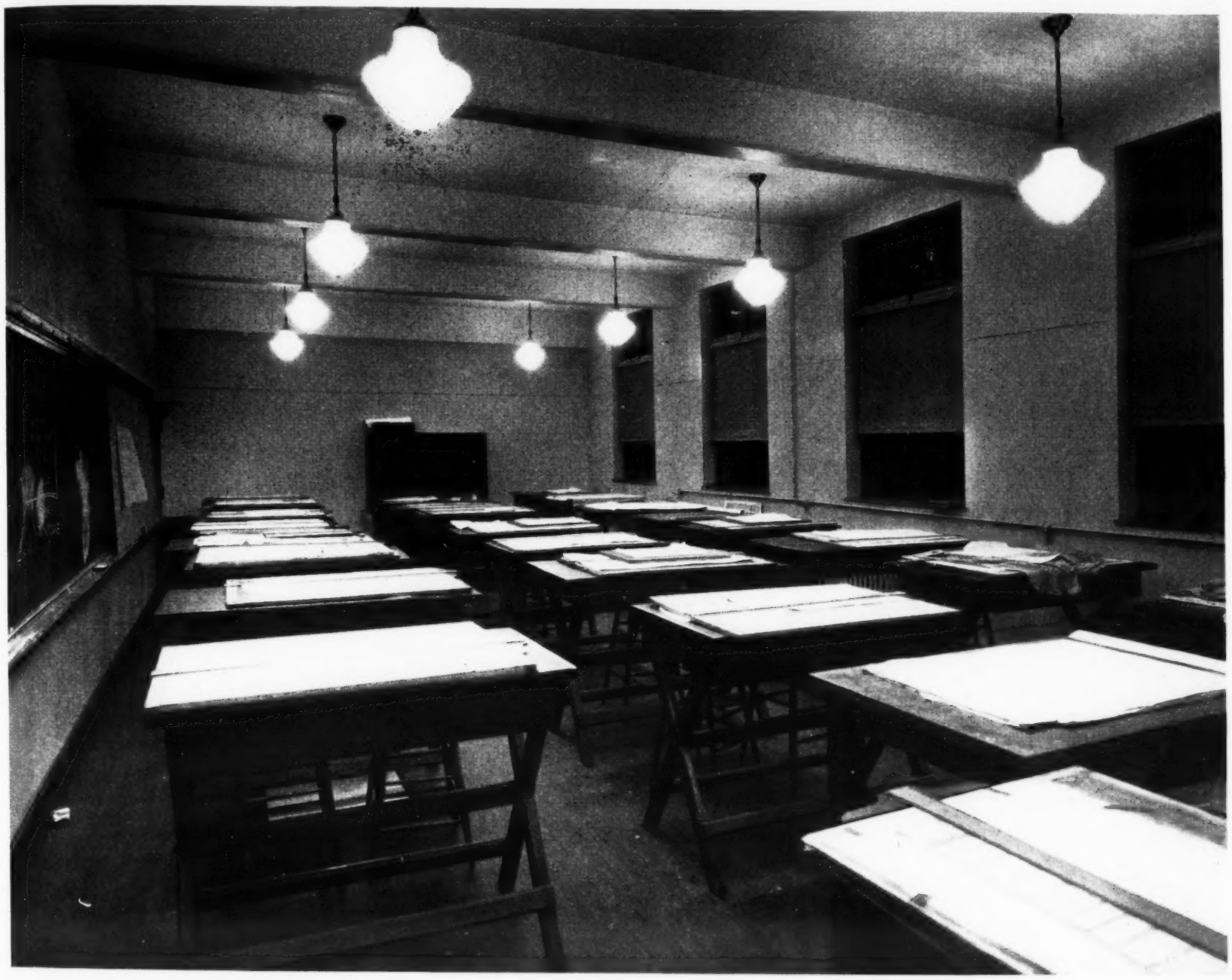
The southeast, with its sparsely settled areas, leads in the number of children using the school busses daily, a total of 410,771, the association pointed out, with North Carolina having the largest number of schools served. North Carolina also leads the states with the number of children transported daily, while Indiana is second with 145,715. Ohio is in third place, with 94,500.

FINANCE AND TAXATION

♦ The city of Toledo, Ohio, has been hit by several bank failures. Supt. Charles S. Meek, in discussing the subject with 1,500 teachers, said: "What constitutes our professional character now must undergo the acid test of strength and fidelity. Shall we be able to submerge our own personal griefs and throw ourselves into our professional duty with even greater spontaneity and enthusiasm than characterized our work in former years? To save the present school situation such professional service is now indispensable and may only be attained by the most heroic self-sacrificing effort. We may reach such heights only by the exercise of unchangeable, unquenchable power of will."

♦ Hammond, Ind. A hearing was recently held on the coal controversy in the school board. The local Consumers' Company had made complaints against the school board, alleging that the board of education had failed to award the contract on the low bid. Members of the board, on the other hand, asserted that the contract was awarded in conformance with the legal requirements, that the lowest and best bidder had received the contract on the basis of an impartial analysis conducted by an Indianapolis agency, and that the board had acted in good faith in handling the matter.

♦ Cincinnati, Ohio. The board of education may permit the use of the school yards by the public recreation committee for its activities, according to a recent ruling of John D. Ellis, city attorney. Mr. Walter Pister, a citizen, had demanded that suit be brought to restrain the board in granting the use of the school yards. Under the ruling, it was brought out that the recreation commission is a public body, and that the board's property was not being used for private enterprises.



No department in a professional school is more exacting in its insistence on good illumination than the drafting-room. This photograph shows an installation of Holophane Filterlites in the Architectural Drafting-Room at Penn State College.

HOLOPHANE Planned Lighting

will produce this remarkable quality of illumination in *Your* School

Observe the soft, glareless, thoroughly diffused lighting throughout this room. Notice the high intensity of illumination on the tops of the tables, and observe how all objects appear in natural, unforced detail. Note the absence of fixture shadows on the ceiling, and see how even the slight shadows cast on the floor by the furniture are so softly outlined as to be barely perceptible. This same quality of illumination is available for *your* classrooms through the use of Holophane Planned Lighting.

The Holophane Engineering Department will co-operate with you by furnishing lighting specifications, without obligation, either for new installations or for improvements in old buildings.

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Perfect Water Temperature Control

a safety feature that

Schools Should Insist Upon

The Powers Shower Mixer is not thermostatic, yet it has all the characteristics of a thermostatic valve in its ability to maintain a constant delivery temperature in spite of fluctuating pressures in hot and cold water supply lines.

It has two remarkable features found in no other mixing valve. They are:

PRESSURE EQUALIZING VALVE. Without this important feature a Powers Mixer would simply be another shower mixer.

This valve controls and equalizes the pressures of hot and cold water before it enters the mixing chamber.

It safeguards the bather from scalding and annoying temperature changes caused by pressure changes in supply lines due to use of nearby showers, faucets and flush valves.

If the cold water supply fails, it substantially shuts off hot water.

SAFETY STOP SCREW. This can be set to limit the delivery temperature of the shower.

Three important advantages are gained through its use:

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2. It saves fuel by eliminating waste of hot water.
3. It reduces decorating expense by preventing "steamed-up" rooms.

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Please tell us how PERFECT WATER TEMPERATURE CONTROL can be assured in the shower rooms of our school. We are interested in this SAFETY feature.

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SCHOOL..... ADDRESS.....
CITY..... STATE.....

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New Rules and Regulations

RULES FOR THE HIGH SCHOOL

On September 17, the board of education of Rome, Ga., adopted two regulations for the government of the high school. One of these rules requires the payment of fees for high-school students repeating a subject; the other requires the payment of fees by postgraduate students. The new rules, which are the result of increased attendance and shortage of classroom accommodations, are as follows:

Repeaters in the High School

Beginning with September, 1932, fees will be charged pupils in the high school, both resident and nonresident, taking a subject a second time, as follows: For a regular unit subject, $5 a year; for home economics, $3 a year; for spelling, $2 a year.

The fees are required of repeaters only, since there is no charge, other than the laboratory fees, for taking a subject the first time. Nonresident pupils who are repeaters must pay these fees in addition to the regular tuition fees. A repeater is one who was entitled to a report card for five months or more during the previous school year, and who failed to obtain credit for any or all of the work taken.

The rule is not retroactive and is intended to apply only to pupils failing in all, or a part, of their high-school work during the school year 1931–32 and thereafter, and to subjects failed during the school year 1931–32 and thereafter. The fees must be paid on the day the repeating pupil applies for admission to the high school, and no pupil will be allowed to enroll in or attend any classes, new or old, until the fees have been paid.

No portion of the fees will be refunded at any time for any reason, provided the pupil paying these fees attends the high school for as much as eleven school days after enrolling. If a pupil pays the required fees for repeating, but fails to attend school for as much as eleven days, one half of the amount may be refunded.

No pupil will be allowed to omit from his course of study a subject in which he has failed, but he must obtain credit for work in which he has failed, before he is permitted to take up similar work in the next or succeeding years. (This does not prevent a pupil from changing his course under proper authority without a penalty. Neither does it prevent him from obtaining credit on work failed, by examinations, or by special summer-school work.)

The fees for repeaters will be collected by the principal and will be handled in the same manner as tuition fees and other fees. It is the duty of the principal to see that no repeating pupil is allowed to enroll in any class, new or old, until the required fees have been paid.

Postgraduate Students

Beginning with September 1, postgraduate students in the high school, either resident or nonresident, will be charged the same monthly tuition fee as paid by nonresidents in the senior class.

RULES AND REGULATIONS

♦ The Chicago board of education has adopted a resolution, ordering the employment of an audit company to conduct a survey and audit, and to recommend a method of compiling, keeping, and maintaining a complete inventory of school property. It further calls for "the establishment of a system of property control; for the establishment of a plan and system of accountability and responsibility covering such property, and for the establishment of a department covering reclamation and salvage of property belonging to the board."

♦ Indianapolis, Ind. The school board has issued, in booklet form, a set of rules for the government of the school board, the schools, and the libraries. The rules cover the organization of the board, the duties of school officials, teachers' salaries, pupils, buildings, and libraries.

♦ The board of education of London, Ohio, has adopted a rule whereby young married pupils are banned from the public schools.

♦ To relieve overcrowding in the high schools of New York City, the board of education has announced the consideration of a score of new buildings providing 70,000 sittings. The cost of these projects, it is officially estimated, will aggregate $34,000,000 and will increase the high-school plant nearly 50 per cent.

♦ The board of education of San Antonio, Texas, has adopted a rule forbidding the use of tobacco by teachers and pupils.

♦ In order to create a greater public interest in the schools and thereby answer the clamor for retrenchment, the board of education of Berkeley, Calif., has adopted a resolution whereby all civic and religious organizations, service clubs, fraternal orders, parent-teacher associations, and all other societies are urged to assist in informing the people as to the needs of the Berkeley schools, and that a campaign of education be conducted through the public press.

♦ The following rule was adopted by the board of education of Granite, Utah, fourteen years ago and is still observed: "In order that there shall be a real unity in the school organization and a responsibility to one head in the administration, the superintendent is made the executive head of the entire system. Through him the board of education does its work. The educational department is considered to be the most important department and that for which all the others exist: in fact, the primary purpose of creating additional departments is to enable the educational department to get teachers and children together under the most favorable educational conditions. The efficiency of the clerical and building departments is determined in part by economies made in those departments and which mean added money for increasing the effectiveness of the instruction in the schools.

♦ Streator, Ill. In order to relieve the burden of the taxpayers, the elementary-school board has this year reduced its tax levy by $10,000, from a total of $150,000. Two teachers have been eliminated from the teaching staff and the annual salary increases have been reduced one half.

School Administration Notes

♦ Cleveland, Ohio. The school officials, under the direction of Acting Supt. C. H. Lake, have organized their forces to care for undernourished school children during the winter months. It is planned to obtain the names of pupils who come from poverty-stricken homes. These children will be given physical examinations by the school doctors and special attention given to the undernourished. The work of caring for these children will be coördinated between the school officials and various relief agencies. In many districts, free milk will be given to pupils in their classes.

♦ Evansville, Ind. The school officials have discussed plans for feeding indigent school children. Last year the amount for lunch checks given out to children far exceeded the sum of $1,000 set aside by the school board. It was suggested that the domestic-science department feed these children for a time, in order to determine whether a saving in funds could be effected.

♦ A program of radio broadcasts for shut-ins has been planned by the schools of Indianapolis, Ind., under the direction of William A. Evans, director of publications. The programs will be broadcast three mornings each week and will be adapted to provide material of interest and value to children who are absent from school because of illness, to crippled children, and to children in hospitals and sanitariums.

In addition, a series of evening programs of thirty minutes each will be given. The material will be directed to parents and citizens who are interested in schoolwork.

♦ Plans have been begun for a new junior-high-school curriculum in Indianapolis, with the idea of making the teachers in the system thoroughly familiar with the junior-high-school movement. Fourteen seminar groups of 15 to 75 teachers have been formed for special study of the various phases of the curriculum. The work is in charge of Mr. M. H. Stuart, assistant superintendent in charge of secondary education.

♦ A department of publications has been established at Indianapolis, Ind., with Mr. William A. Evans in charge of the work.

♦ A group of 2,400 employees of the public schools of Denver, Colo., recently voted to contribute the sum of $100,000 to the relief funds of the city during the next six months. Teachers, principals, custodians, lunchroom employees, nurses, clerks, secretaries, directors, and administrators contributed to the fund. A graduated scale was worked out for the contributions, ranging from 2 to 8 per cent of six month's salary, with persons receiving less than $1,000 a year paying a flat sum of $5 each. One fourth of the amount raised, or $25,000, will go to the community chest, and three fourths, or $75,000, to the employment-relief fund.

♦ Hagerstown, Md. Two junior-high-school buildings were opened in September, with accommodations for 800 pupils each.

♦ Hagerstown, Md. A class for crippled children has been organized. The opening of the new classroom has been made possible as a result of the completion of new buildings. All portable rooms, rented rooms, and basement rooms have been abandoned this year.

♦ Streator, Ill. Midyear admission of first-grade children has been discontinued this year, due to a decision to form larger classes for grouping on the ability basis. Midyear promotion in the upper grades, however, will be continued, until the classes entered in February have worked out.

♦ Chillicothe, Ohio. The school board has approved a plan of the superintendent of schools for making the night school self-sustaining. Under the plan, courses must have a minimum of fifteen persons in a class. A charge of $2 an hour will be made for a period of fifteen weeks.

A calendar for the school year, based on a 38-week year, has been approved by the board. Should financial conditions require a change in the length of the school term, the reduction can be made with a change of the commencement and closing dates only.

♦ Valparaiso, Ind. The high-school band has been provided with new uniforms. Under the direction of Supt. R. B. Julian, an organization was formed which raised $1,200 for the purchase of new band outfits.

♦ The state education department of California has announced the compilation of a complete calendar for school officials, covering the period from July 1, 1932, to June 30, 1933. The purpose of the calendar is to indicate as completely as possible the time fixed for the performance of every act required to be done in connection with the administration of the schools. It gives each calendar date, the date fixed by statute, the person or body affected, the act required, and the authority.

In the publication of the calendar, the state department endeavors to render a service to the school officials, and to invite suggestions and criticisms which will improve the calendar and increase the service rendered.

♦ New York, N. Y. Beginning with October, 1931, the schools of New York City began a campaign for funds for the operation of a school relief program during the winter months. The money is to be used for continuing the relief program for needy school children and their families which was carried out so successfully last year. At that time, the school teachers and officials contributed nearly $500,000, of which $80,000 remains for the current demands.

♦ Belmont, Mass. Supt. F. A. Scott prepares weekly news articles for the local newspaper, under the heading "Know Your Schools." The articles are reprinted each month and sent to parents in the form of circular letters.

♦ The Town and City Superintendents' Association of Indiana will hold its annual meeting February 4–5, at Indianapolis. The meeting will have for its subject, "Interpreting the Work and Services of the Public Schools to the Public." The executive committee, which is headed by Supt. V. L. Eikenberry of Vincennes, has made plans to obtain a number of outstanding speakers and to develop a helpful and worth-while program.

♦ A meeting of school superintendents was held recently at Traverse City, Mich. At the conference, it was decided to organize as a part of the Michigan Teachers' Association. Mr. E. T. Cameron, of Lansing, was elected secretary.

School Law

♦ The attorney general of Ohio has recently ruled that boards of education are without authority to recognize and pay damages, or doctor or hospital bills, for pupils injured in playing high-school football games as either a legal or moral obligation. He further ruled that "where a child attending the public schools is injured during its attendance at school, under circumstances which would render the board of education liable in damages for such injury, were it not protected by the rule of nonliability in tort which exists in favor of governmental agencies acting in a governmental capacity, the board of education, in its discretion, lawfully may recognize as a moral obligation, a claim for damages growing out of said injury and pay the same or any part of the same from public funds."

♦ According to a recent opinion rendered by the attorney general of California, in an action brought against a school district, for any injury to a pupil, the duty of defending the district is imposed upon the district attorney. School districts cannot engage or pay for special counsel to defend the district.

♦ The California state department of education has issued a legal calendar for the use of public-school officials. The calendar provides the dates when certain official acts must be performed. These apply to governing boards of school districts, to county superintendents, and to state officials having contacts with school interests.

♦ A girl student of the Madison, Wis., schools was injured in an automobile accident while in company with other students making a study of wild flowers in the country. Her father presented a doctor's bill to the board of education. The city attorney has ruled that the board is not liable for injuries received by students, and is not authorized to appropriate funds for such a purpose.

SCHOOL LAW

School Lands and Funds

A constitutional provision requiring the maintenance of one or more public schools in each school district is mandatory (Colo. constitution, art. 9, § 2). — Duncan v. People, 299 Pacific reporter 1060, Colo.

A school board's arrangement for school accommodations in another district does not satisfy a constitutional requirement of the State of Colorado respecting the continuance of one or more public schools in each district (Colo. constitution, art. 9, § 2). — Duncan v. People, 299 Pacific reporter 1060, Colo.

A school board cannot justify the failure to maintain a school within a district on the theory that the action was induced by a vote of the district electors (Colo. constitution, art. 9, § 2). — Duncan v. People, 299 Pacific reporter 1060, Colo.

Schools and School Districts

A county board of education is vested with sound discretion in determining matters necessary to formation or consolidation of school districts (Crawford & Moses' Digest, § 8869). — Priest v. Moore, 39 Southwestern reporter (2d) 710, Ark.

A statute authorizing a county board to consolidate the school subdistricts when necessary was held not to mean that the consolidation must be indispensable or a strict necessity, but to authorize a consolidation if reasonably useful, convenient, or proper (Ky. statutes, § 4426–1) — Whalen v. County Board of Education of Harrison County, 39 Southwestern reporter (2d) 475, 239 Ky. 341.

Whether the consolidation of subdistricts was necessary rested within the county board's discretion (Ky. statutes, § 4426–1). — Whalen v. County Board of Education of Harrison County, 39 Southwestern reporter (2d) 475, 239 Ky. 341.

In determining whether school districts should be consolidated, the wishes and convenience of a majority in the territory affected must be considered (Crawford & Moses' Digest, § 8869). — Priest v. Moore, 39 Southwestern reporter (2d) 710, Ark.

If more than one petition for the consolidation of school districts be filed, the county school board may, if it considers it proper, hear them together (Crawford & Moses' Digest, § 8869). — Priest v. Moore, 39 Southwestern reporter (2d) 710, Ark.

A county board's orders respecting the formation or consolidation of school districts are reviewable only when arbitrary or unreasonable (Crawford & Moses' Digest, § 8869). — Priest v. Moore, 39 Southwestern reporter (2d) 710, Ark.

A court cannot interfere with a county board's exercise of discretion in consolidating subdistricts, unless abused (Ky. statutes, § 4426–1). — Whalen v. County Board of Education of Harrison County, 39 Southwestern reporter (2d) 475, 239 Ky. 341.

School District Government

An action by the school trustees in declaring a vacancy by the trustee's acceptance of another office, and declaring another elected to fill a vacancy, was held void for a lack of jurisdiction (Ky. statutes, § 4465). — Middleton v. Middleton, 40 Southwestern reporter (2d) 311, Ky.

An action by the school trustees in declaring a vacancy by the trustee's acceptance of another office and declaring another elected to fill the vacancy was held void where the person elected was an interested party acting in his own behalf (Ky. statutes, § 4465). — Middleton v. Middleton, 40 Southwestern reporter (2d), 311, Ky.

Where a party was elected and qualified as trustee of a school district, a subsequent qualification and assumption of duties as city councilman made the vacancy in the office of school trustee (Ky. statutes, §§ 3744, 3746, 4465; Ky. constitution, §§ 155, 165). — Middleton v. Middleton, 40 Southwestern reporter (2d) 311, Ky.

School District Property

A county board of education has discretion in selecting a school site, and the selection should not be interfered with unless it appears the board had acted arbitrarily or had abused its discretion (Ky. statutes, 4434a–6, 4439). — Spaulding v. Campbell County Board of Education, 39 Southwestern reporter (2d) 490, 239 Ky. 277.

Where a school district agreed to purchase a school site without sufficient funds for that purpose, the contract, being executory, was held void, hence the payments made could be recovered (Mich. complete laws of 1929, §§ 7103, 7432, 7433, 7486. Mich. laws of 1929, § 7094 et seq.). — Stanger v. Miller, 237 Northwestern reporter 533, Mich.

CLOUDY DAYS BRING THE *Twilight Zone*

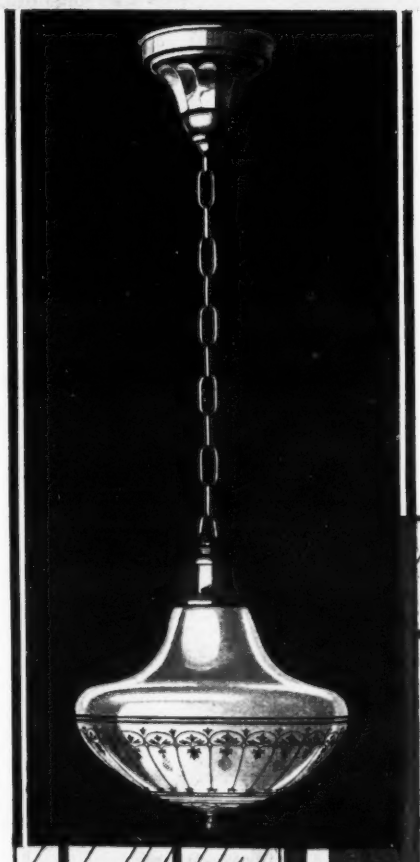
RAINY, cloudy days bring to schoolrooms the dull half-light known as the Twilight Zone*. And with this deceptive dimness comes eyestrain as a natural consequence.

Young eyes must be protected from this taxing half-light. When semi-darkness settles in a room, a twist of the switch must flood the room with clear diffused illumination.

Assure good lighting to your schools by the use of Sollux equipment—Westinghouse units designed to furnish correct light without glare or shadows. Don't allow the pupils of your schools to weaken their eyes in the Twilight Zone.

Write to the nearest Westinghouse District Office for more information on Sollux units, or call in a Westinghouse lighting specialist for advice when planning improvements.

**The deceptive half-light between obvious darkness and adequate illumination.*



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Easy cleaning and lamp renewals are distinctive features of Sollux units. Globes need never be removed from their hangers, for "tilt-out" caps in the bottoms of the globes make access to the inside as easy as to the outside. Globes are dust and bug-proof.

Sollux units may be had in various sizes in either suspension or ceiling type. This photograph shows the suspension type.

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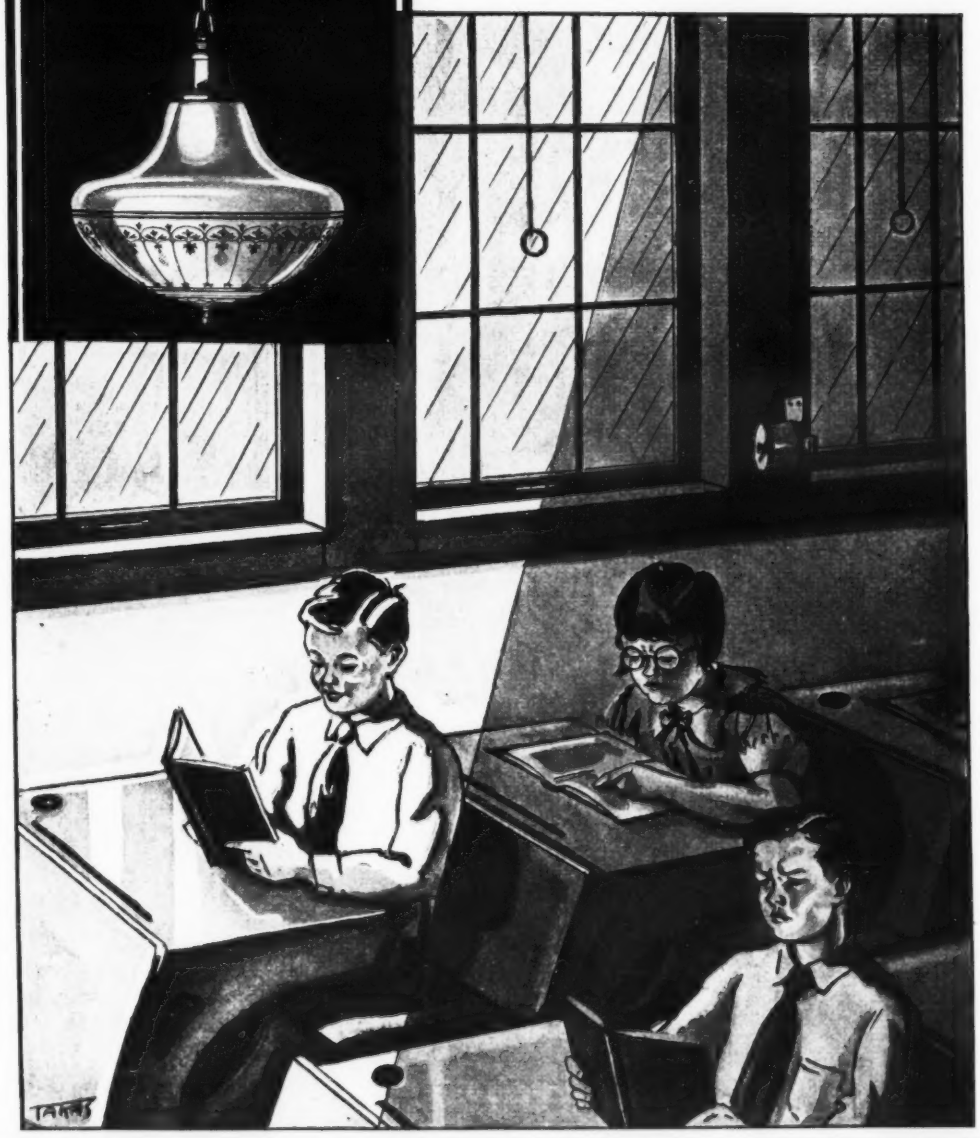

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School Building News

SCHOOLHOUSE REPAIRS AND MAINTENANCE

The question of school-plant repairs and maintenance was, during the year, made the subject of careful investigation by the board of education of Buffalo, N. Y. A firm of expert accountants was employed to dig into the question, establish comparative costs, and recommend improvement if any was deemed expedient.

The investigators found that the per-pupil cost of operating and maintaining school proper was $34.42, or by far the highest among a group of fifteen representative cities. A direct comparison was made between the cities of Buffalo and Milwaukee, being close in population numbers and basic educational conditions. The experts here say:

"We find that the cost of operating and maintaining the Milwaukee school plant was only $16.99 per pupil in 1928–29, as compared with the Buffalo cost of $34.42. Buffalo's cost was thus *more than double* that of Milwaukee. Figured on a comparable basis (the average pupil attendance was almost the same), it cost about $1,200,000 more to operate and maintain the Buffalo plant than it did to operate and maintain the Milwaukee plant. What are the reasons for those wide differences? And what corrective measures, if any, can be applied to bring the Buffalo cost down to a reasonable level?"

In trying to find the answer to the questions asked, it was found that the duty of operating the Buffalo school plant was in part assigned to the division of business affairs, and in part to the bureau of architecture. The one dealt with the matter of accounting and the other with construction labors. These two agencies placed the immediate supervision and jurisdiction into the hands of one person. The investigator here says:

"This was an error at the outset. The qualities which make a man a good superintendent of repairs, construction, and operating agencies are seldom found conjoined with the qualities which create a good comptroller. The purpose of the one set of bureaus was to execute work programs; that of the other set was to record those facts with respect to work done which enable an executive to say whether it has been done well. As a consequence of the organization set-up, both of these phases of the school department's activities suffered seriously. Both types of work were done badly and expensively.

"This, in general, is the reason, why costs in the past were high; this, also, is the situation which the by-laws recently recommended are designed to correct."

The experts point to the fact that the overlapping of duties and of forces cause a waste. "For instance, the repair and construction of concrete walks and drives came under the landscape foreman, other concrete work under the supervisor of construction. Each had his own force and equipment with which to do his part of this particular kind of work. Under such a system, expenditures inevitably piled up to an unreasonable height."

Another interesting comment is embodied in the following paragraph: "There are also indications that individual members of the board have frequently used the prestige of their position to interfere with the routine workings of the department — and particularly construction and repair activities. An analogous situation would be for a director of a corporation to deal directly with a plant foreman. Such interference disorganizes the department; it is unfair to the superintendent of schools, to the deputy in charge of the division, to the party with whom the board member deals, and to the taxpayers of the city. The regulations of the board should specifically provide that its contact with the school system shall be established solely through the superintendent."

BUILDING NEWS

♦ Indianapolis, Ind. Three elementary schools were opened for the first time in September. School No. 56, with 12 classrooms, houses colored pupils of grades one to six, and was erected at a cost of $132,000. School No. 69, with 13 classrooms, cost $163,000. School No. 82, with 12 classrooms and an auditorium, houses 500 pupils, and was erected at a cost of $188,000.

♦ Ravenna, Ohio. A general overhauling and cleaning of the public schools was carried out during the past vacation period, under the direction of W. L. Hugill, custodian of the school buildings. Cleaning, disinfecting, and general repairs were made on all parts of the schools. Heating plants were repaired and checked, mechanical devices were placed in order, floors received special treatment, desks, chairs, and other furniture were washed, repaired, and varnished, and roofs were checked for leaks and needed repairs.

♦ Belmont, Mass. The Mary Lee Burbank School was completed and occupied in November. The school was erected at a cost of $205,000.

♦ Chicago, Ill. Two bond issues in connection with a revised plan for raising $125,000,000 for the relief of the city schools have been presented to the governor's revenue commission by the board of education. The board has also voted an addition of $6,000,000 in tax warrants for the $10,050,000 trust-fund backing scrip being issued to school employees.

Of the two bonds issued, one is in the amount of $75,000,000 as an increase in the board's working-cash fund to pay salaries and other expenses of the educational department. The second is in the amount of $50,000,000 to provide money for the erection of schools needed for 70,000 children who are inadequately housed.

Redemption and interest charges for the $50,000,000 issue, to run for twenty years, are to be provided for in a 10-cent redemption fund tax. The 58-cent building-tax fund is to be reduced 11 cents, making a net gain for the taxpayer of 1 cent, and leaving approximately $16,000,000 in the building fund. This is sufficient to take care of the current building needs.

The $75,000,000 addition to the working cash fund is intended to provide cash to pay for the operating expenses of the past year and for 1932. The receipts will be used to purchase $35,000,000 of 1931 educational-fund warrants, and $40,000,000 of 1932 warrants.

NEW YORK SCHOOL-BOARD CONVENTION

The teachers' tenure law was one of the principal subjects discussed at the convention of the Associated School Boards and Trustees of New York, held at Syracuse. One of the contentions was that when a teacher has become eligible for retirement — as for example, upon thirty-five years of service — her retention or dismissal shall rest with the school board.

Under the present law, while a teacher is eligible for retirement after thirty-five years of service, she need not quit; retirement is not compulsory until the teacher has reached 70.

Another proposed amendment provides that trials of teachers who are up on charges be held in secret instead of, at present, in public.

The four amendments to tenure law recommended by the Associated School Boards and Trustees briefly are:

1. Termination of required tenure when a teacher becomes eligible for retirement, after which service will be continued at the will of the Board of Education.

2. Removal during tenure may be made for cause by vote of a majority of the Board of Education, after a hearing in executive session, at which the teacher may be represented by counsel.

3. Appeal may be made from the decision of the board to the State Commissioner of Education, but the decision of the Commissioner shall be final.

4. The proposed amendment shall not affect teachers who are enjoying permanent tenure at the time amendment is adopted by the State Legislature.

Warns of Economies

While the trustees were considering ways of economizing in these days of financial stringency, their principal speaker, Prof. N. L. Engelhardt of Columbia University, warned them against the practice of false economy. Children are entitled to sound education amid healthful surroundings fully as much now as they were in periods of prosperity, he declared. He particularly warned his hearers against the hiring of poorly prepared teachers merely because they could be obtained for lower salary rates.

Financing of current school expenditures should be done on a pay-as-you-go plan, declared Dr. Engelhardt. The speaker condemned the practice of borrowing on short-term notes to meet expenses pending a delayed budget.

"Too many boards of education," Dr. Engelhardt said, "are mistaking false for true economy in these days of depression, with curtailment of educational programs unfair to children of their districts.

"Economy is just as needful in days of financial prosperity as in days of stringency, and the founders of this democracy never intended that a child should be robbed of his heritage of public education even though that robbery were dressed in the garb of economy."

The list of speakers included: Charles A. Brind, Jr., of the law division of the State Education Department; Raymond S. Jewett, president of the organization; Miss Treva E. Kauffman, supervisor of the Bureau of Home Economics of the State Education Department; W. F. Kennedy, associate superintendent in Pittsburgh; Dr. Lewis A. Wilson of the vocational and extension education division of the State Education Department; State Commissioner of Education Frank P. Graves, Dr. Hughes Mearns of New York University, Dr. George S. Counts of Teachers College and others.

Officers with the exception of two sectional vice-presidents were reëlected. They are: Raymond S. Jewett of Mount Vernon, president; George R. Stephens of Lancaster, vice-president, section 1; Guy W. Cheney of Corning, vice-president, section 3; William F. Seber of Troy, vice-president, section 4; James H. Anderson of New Rochelle, vice-president, section 5; Dr. Frank Quackenbush of Northport, treasurer; W. A. Clifford of Mount Vernon, executive secretary.

Harold L. Fuess, of Waterville, succeeds Harry J. Clark, of Syracuse, as vice-president of section 2; and G. Burchard Smith, of Freeport, becomes vice-president of section 6.

PERSONAL NEWS

♦ Mr. Arthur K. Loomis, formerly of Denver, Colo., has accepted a position at the University of Chicago as director of the laboratory high school and associate professor of education. Mr. C. L. Cushman has been appointed to succeed Mr. Loomis as director of the department of curriculum at Denver.

♦ Mr. Paul L. Essert has been appointed supervisor of high-school instruction at Denver, Colo. Mr. Essert was formerly principal of the high school at Fort Collins.

♦ Mr. Fred Burka and Mr. Fred Beard have been elected as new members of the board of education at Dearborn, Mich., to succeed Mr. Fred Maples and Mr. John S. Makemson.

♦ Mr. Thomas G. Dunn has been elected a member of the school board at Osakis, Minn., to succeed Dr. E. Haberman.

♦ Mr. Glen D. Brown, business manager of the schools of Muncie, Ind., has resigned, to become supervisor of part-time education in Baltimore, Md.

♦ E. P. Mitchell is the new member on the board of education of South Sioux City, Nebr.

♦ Dr. H. Barrett Learned, resigned the presidency of the board of education of Washington, D. C., to accept a professorship at Stanford University, California.

♦ Four new district superintendents of schools have been appointed by the New York City board of education, at a salary of $10,000 each. They are Frederic Ernst, Rufus Vance, John L. Loftus, and Benjamin B. Greenberg. They succeed John T. Nicholson and James M. Edsall, deceased; John P. Conroy, retired; and Dr. William E. Grady, who was promoted to the board of superintendents.

♦ Mr. H. H. Beach has assumed the office of superintendent of schools at Elmira, N. Y. Mr. Beach was formerly at Westport, Conn.

♦ Mr. C. E. Birch has been elected superintendent of schools at Lawrence, Kans., to succeed the late W. W. Curfman.

♦ Supt. James F. Taylor, of Niagara Falls, N. Y., was recently elected president of the New York State School Superintendent's Council, at the closing session of the convention held at Lake Placid.

♦ Mr. R. J. McNeily, of Melbourne, Iowa, has been elected superintendent of schools at Rock Valley.

♦ Supt. H. L. Bussey, of Reading, Ohio, enjoys the distinction of having been elected more times as superintendent than any other man in the vicinity. He was first elected for one year, then for three years, and recently was reëlected for another three-year term.

♦ Dr. William J. Cooper, U. S. Commissioner of Education, has been seriously ill at a hospital in Youngstown, Ohio. Dr. Cooper had gone to Youngstown to deliver an address.

School Hygiene

PRECAUTIONARY MEASURES AGAINST INFANTILE PARALYSIS

Upon order of Supt. William J. O'Shea, of New York City, the city schools have put into operation ten special precautions against infantile paralysis. The schools delayed the opening of classes until September 22, because of the epidemic of poliomyelitis. The requirements are:

1. Arrange for pupils to go directly to their classrooms, thereby, avoiding line and mass formation in play yards, stairways, and halls.
2. Provide an individual seat for every pupil.
3. Limit departmental and other class changes. Whenever practicable, have teachers, rather than pupils, make the changes.
4. Use stagger system for dismissing and admitting pupils at noon, and at the close of the school day. Employ the same system for lunch and recess periods.
5. Insist that the lunchroom personnel exercise the strictest kind of hygienic care of the lunchrooms, equipment, cooking and eating utensils, and food. Exercise care in the disposal of food wastes, removal of used trays, empty bottles, etc.
6. Discontinue temporarily the use of apparatus (game materials, bean bags, balls, rings, etc.) in play and in exercise, and advise against the joining of hands, as in dances and games, especially in the kindergarten through the 4B classes.
7. Assembly exercises in all schools, and gymnasium exercises in elementary schools, should not be held. Organized play and recess periods should be taken out of doors.
8. Emphasis should be placed upon the proper use of drinking fountains, sanitary care of toilets, frequent hand washing, covering coughs and sneezes, and in the hygienic care of wardrobes.
9. Discontinue, for the present, the use of swimming-pool and shower-bath activities. The former should be discontinued because of the possibility of the transmission of disease through nasal washings, and the latter on account of personal contacts.
10. Remind pupils to exercise the greatest caution at this time to safeguard their own health and that of others. This caution should also be conveyed to parents at parents' meetings and on other occasions.

CLOTHING FOR SCHOOL CHILDREN

"In selecting clothing for the children for their school days it is well to bear in mind that plain clothing for both the boy and the girl is the best. Particular attention, however, should be paid to the selection of shoes for both boys and girls." So said Dr. Shirley W. Wynne, health commissioner of New York City, recently.

"The care of the feet is of great importance and should commence in childhood. Poorly fitting shoes may lead to serious health impairment. It will pay every mother to have her children's feet examined by an orthopedic specialist or at one of the many orthopedic clinics, if she is unable to pay the fee of the specialist.

"The majority of foot troubles come from wrongly shaped or improperly fitted shoes. It will benefit both the child and the mother if the latter will shop carefully for the shoes. In many of the shoe shops there are experts in the fitting of children's shoes and these are the persons who should fit the youngsters' feet. After the first fitting it will be known just the kind of shoe the child requires.

"See that the stockings fit perfectly. They should not be too short, nor yet too long. If too large they wrinkle and not only cause discomfort, but may result in serious injury. If too short they cramp the foot. As to materials, cotton is considered generally best for all seasons."

HYGIENE

♦ The U. S. Public Health Service reports the results of a medical examination of 30,000 children showing that 75 per cent have one or more physical defects.

The study showed that the six conditions most frequently noted in physical examinations were decayed teeth, defective vision, defective tonsils, anterior cervical glands enlarged, excessive wax in ears, and thyroid gland enlarged. The proportion of girls with one or more defects was 3 per cent less than for boys.

School Board News

♦ Manitowoc, Wis. The superintendent of schools, Mr. Hugh S. Bonar, has been asked to revise the school program, so that it will come as closely as possible to the full school year of forty weeks. Some of the schools had opened a week earlier, and it was feared that the year might be still further shortened by holidays, convention dates, and other interferences.

♦ Attorney General E. T. Vinopal, Jr., of Juneau county, Wis., has ruled that a member of a school board who signs a contract with a woman who is the wife of a member, is guilty of malfeasance in office, and the contract is void.

♦ Supt. J. E. Warren, of Lakewood, Ohio, in September, inaugurated a new idea in educational administration, when he invited all members of the staff, custodians, janitors, engineers, office workers, and medical staff, as well as teachers, supervisors, and principals to attend the annual teachers' meeting. Approximately 500 employees of the board were in attendance at the first assemblage in the Emerson Junior High School. Mrs. A. F. Allen extended greetings, and Mr. John Cantrell, president of the teachers' federation, welcomed the new teachers to the group. Mrs. A. N. Dawson, a new member of the board, was introduced. The principal address of the morning was made by Supt. J. E. Warren, who outlined the uncertain financial future of the schools this year, and stressed the need of enthusiastic and loyal coöperation on the part of every employee in the board's program of economy and retrenchment.

Teachers and Administration

NEW RULES GOVERNING VINCENNES TEACHERS

Vincennes, Ind. Upon the recommendation of Supt. V. L. Eikenberry, the board of education has adopted new rules governing the teaching personnel of the school system. The rules read as follows:

1. Teachers, principals, and supervisors, without degrees, must attend summer school in a recognized college or university one year in three, in order to be eligible for reappointment. Teachers, or others, holding degrees must attend a summer school one year in five, in order to be eligible for reappointment.

2. The board of school trustees will pay each teacher who meets the summer-school requirements a total compensation bonus of $50. This will be paid at the end of the teaching year following the summer-school attendance.

3. Teachers, principals, supervisors, librarians, and janitors will be allowed full pay for four days of absence caused by death in the immediate family. The superintendent and the board of education in each case will interpret the term "immediate family."

4. Any teacher, principal, supervisor, librarian, or janitor under contract, may be absent ten days of any school year for personal illness, without loss of salary. This absence may be accumulative to a maximum of thirty days.

5. Any teacher, principal, or supervisor may be granted a leave of absence for a school year, or a fraction of a year, in order to complete work leading to a degree, and the one to whom the degree is granted may be reëlected to his or her position.

6. Sabbatical leave without pay will be granted to teachers, principals, or supervisors, upon request, provided that the percentage requesting leave in any one year does not exceed 4 per cent of the teaching staff. Seniority of service and the probable advantage to the school system should be the determining factors in granting preferences for a leave or for leave requests.

TEACHERS AND ADMINISTRATION

♦ Sixty-four teachers of Fort Smith, Ark., attended college classes during the summer months, securing an equivalent of sixteen years of college training. The Fort Smith *Times-Record* in commenting upon the subject, said: "A most hopeful thing about the whole educational situation is the attitude of the teacher toward his job. School teaching is no longer a stop-gap vocation, to fill in the time between graduation and marriage, or to keep body and soul together until there is a chance to become a traveling salesman. It has become a profession in the true sense of the word, in which ethics are high, the desire for better personal equipment to do a better job is a dominant element, and money is not regarded as the only reward."

♦ Chicago, Ill. On October 2, 2,000 payless teachers representing the west-side schools attended a meeting at the Crane College auditorium to listen to explanations of plans propounded for their relief. Mr. J. P. Savage, a member of the local board of education, explained the plans proposed for the relief of the salary situation. Supt. W. J. Bogan spoke of the tremendous sacrifice of the teachers and remarked that they had the sympathy of the city, but that they could not long live on sympathy. Mr. Savage could offer no assurance of immediate relief, but pointed out that the legislature has been asked to pass a bill to increase the school board's working cash to $75,000,000 through the sale of bonds. The meeting which had been uproarious and threatened to become more so, finally closed quietly and the crowd surged out of the auditorium.

♦ Lawrence, Mass. Mr. John J. Buckley, a member of the school board, has expressed himself as opposed to permitting day-school teachers to fill evening-school positions at a time when qualified applicants for positions are without employment. Mr. Buckley's stand received no support from his coworkers, one member taking vigorous issue with him on the subject, and the other three members remaining noncommittal.

♦ Springfield, Mass. The mayor's proposed moratorium on teachers' salary increases has faded away in the light of cold legal facts. The school authorities took the stand that the city was legally and morally bound to adhere to the pay schedule. While the mayor admitted that no legal reason existed for forestalling the salary raises, still he desired to determine whether the increments could be granted in advance of the budget for the financial year. Upon learning that the agreement could be made in advance of the appropriation, which obligated the city to include the money in its budget, the mayor agreed to sign the checks.

♦ Racine, Wis. The school board has adopted a slightly reduced budget for 1932, but in doing so, refused to take any initiative in the reduction of teachers' salaries. The school board voted to place the responsibility for meeting present conditions in the hands of the city council. Approximately $8,000 has been saved in teachers' salaries this year, as a result of a decision to discontinue the graduated wage increases for the present year. Other savings were effected by reduced costs for materials and supplies, books, and maintenance of the school plant. A saving of $20,000 was effected in the item for new school sites, and $15,000 in the elimination of summer schools and graduated wage scales.

♦ Cleveland, Ohio. Five thousand school employees, from Supt. R. G. Jones down to the newest teacher, face a possible reduction in salary during the school year, according to Mr. A. A. Benesch, chairman of the finance committee of the school board. The action is in anticipation of a serious shortage in school funds in view of the delinquent tax collections. At the present time, the taxes for the operation of the city and county schools are estimated at below $35,000,000, where last year they ran to $38,000,000. The school board has endeavored to meet the situation by cutting $1,000,000 from the 1932 school budget, but it is now recognized that attention must be given to the payrolls where the major portion of the tax money goes.

TEACHERS' SALARIES AND THE FINANCIAL DEPRESSION

(Concluded from Page 28)

only receive $4,600 a year for his services. This figure represents the pinnacle of the teachers financial success. Beyond this no board of education has yet ventured. When this modest sum is compared with the rewards provided for successful doctors, lawyers, and engineers whose annual earnings frequently amount to tens of thousands of dollars, the financial attractiveness of teaching loses most of its potency.

As measured, then, by the average earnings received and the maximum salaries attainable, teachers still occupy a lowly position in the economic scale. To reduce teachers' salaries when they are already inadequate is to pursue a shortsighted policy which cannot result in anything but decreased future dividends for the public.

Boards of education have an unusual opportunity during the present depression of elevating the position of the teacher by refusing to reduce salaries. This requires a courageous and firm stand against the demands of a shortsighted public absorbed with the difficulties arising from a temporary financial crisis; a public which when the storm clouds of the present depression have lifted will be quick to recognize the wisdom of rewarding generously those servants to whom is intrusted the nation's greatest investment, the future of twenty-five million school children.

NEW PROBLEMS IN PUBLIC-SCHOOL FINANCE

(Concluded from Page 32)

ards applicable to all phases of the field of revenue.

What is Scientific Taxation?

In the fifth place: What are the characteristics of a scientific system of taxation? A scientific system of taxation would be characterized by the use of:

1. *Standards of Selection:* objective instruments (point scales, score cards, etc.) for the selection, evaluation and measurement of sources of revenue.

2. *Standards of Collection:* objective instruments (point scales, score cards, etc.) for the selection, evaluation and measurement of methods for the collection of sources of revenue.

3. *Standards of Distribution:* objective instruments (point scales, score cards, etc.) for the selection, evaluation and measurement of methods for the distribution of sources of revenue.

In the sixth place: What are some of the criteria which might be employed as standards for the "selection" of sources of revenue? Improved standards of selection will involve answers to a number of questions. Among these are:

1. What is the wealth of area to the taxed? (Index of ability to pay.)
2. Which tax will give an adequate source of revenue?
3. Which tax is most economical to collect?
4. Which tax is most easily understood?
5. Is payment of the tax voluntary or compulsory?
6. Which tax is less liable to the accusation of being a tax directed against some particular class or group of individuals? (Universality.)
7. What percentage of net income of the various industries or individuals should be returned to the government in the form of taxes? (Index of ability to pay.)

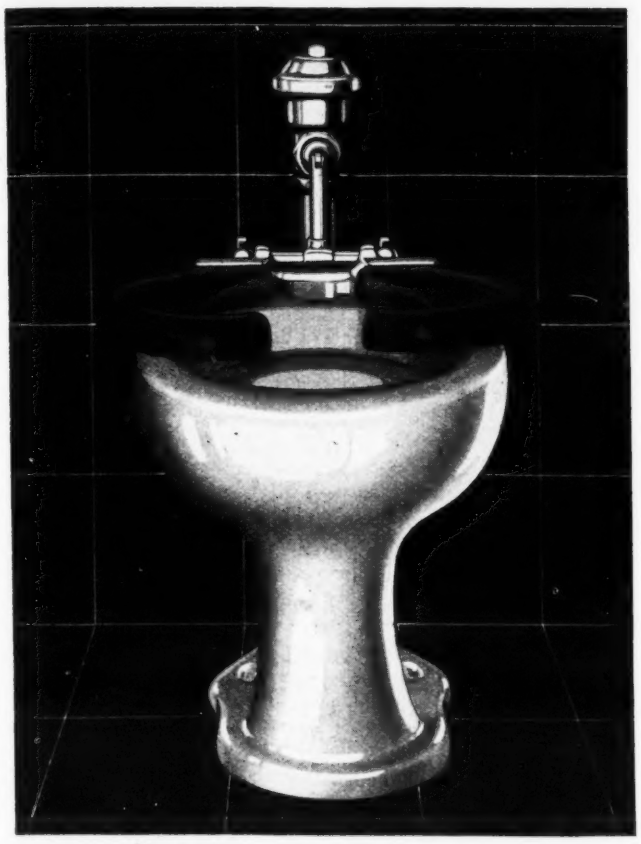
In the seventh place, let us inquire what are some of the characteristics of scientific methods for the "collection" of sources of revenue? An answer to this question is found in the following questions: Should the method of collection be easy to administer? Is the method of collection "unduly" annoying to the person taxed? Is the method economical? And so on!

How Distribute Funds?

In the eighth place, what are the characteristics of scientific methods of distribution? Does the answer to this question involve answers to the following questions? Is the method easily administered? Is it easily understood? Does the method of distribution breed satisfaction among the public which it serves? Is the method of distribution economical? Does the method of distribution include adequate bonds for the protection of the funds involved? And so on!

In conclusion it might be stated that the major purpose of this article is to call attention to two considerations. We have pointed out that state support of the public schools makes it necessary for school administrators and educational research workers to become interested in the nature of state sources of revenue. In the second place, we have stated that, at the present time, state sources of revenue — like local and federal sources of revenue — are still administered on an unscientific basis and that they cannot be made scientific until standards for (1) selecting, (2) collecting and (3) distributing state sources of revenue have been established, and *publicly applied* to existing and suggested sources. *Such information should be included in definite form in every tax-commission report.* To a student of public-school finance this discussion may appear to be trite. It is hoped, however, that this article has resulted in a more definite statement of some of the more apparent and vital problems peculiar to the field of public-school finance.

♦ MR. C. L. MATHEISON, formerly superintendent of schools at Memphis, Mich., has been appointed research assistant in the school of education of the University of Michigan.



The Royal Automatic seat-operating valve delivers a full, positive flush and not one drop more. With this valve no bowl stands unflushed, yet no water is wasted.

Superiority Proved in a Hard School

Convincing evidence of the reliability of Sloan Flush Valves is their widespread use in school buildings where, under extreme conditions of service, they have proved dependable, long-lived and efficient.

This is not surprising, however, when you consider that the Sloan Valve Company has been making flush valves—and flush valves only—for twenty-five years. Rigid adherence to the most exacting quality standards from the very first has brought undisputed leadership in the flush valve field—with Sloan Valves outselling all others combined.

The Sloan line includes hand-operated and automatic seat-operated flush valves, either exposed or concealed. Thus every school requirement is provided for—including floor or wall-outlet closets, urinals and slop sinks. Where maximum water savings are a requisite, valves with a measured flush are available for cold water showers and lavatories.

During 1930 more than 500 of the principal school buildings erected were equipped with Sloan Valves. Inspect any of these installations. It is to your advantage from the standpoint of economy as well as public health.

The experience of Sloan engineers will help you to choose the valve that fits your needs. Offices in all principal cities make this service readily available.

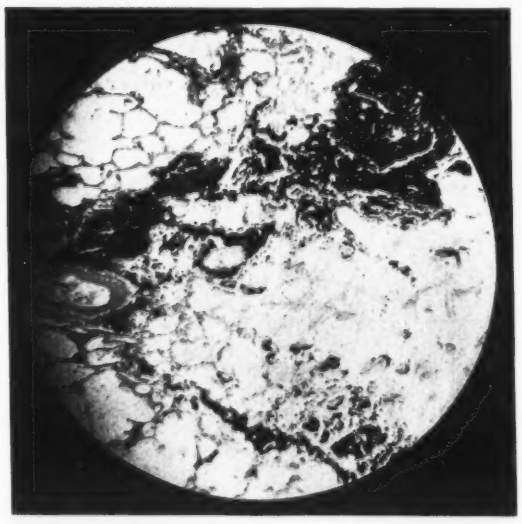
SLOAN VALVE CO • CHICAGO

AIR POLLUTION AND ITS EFFECT ON HEALTH OF SCHOOL CHILDREN

(Concluded from Page 33)

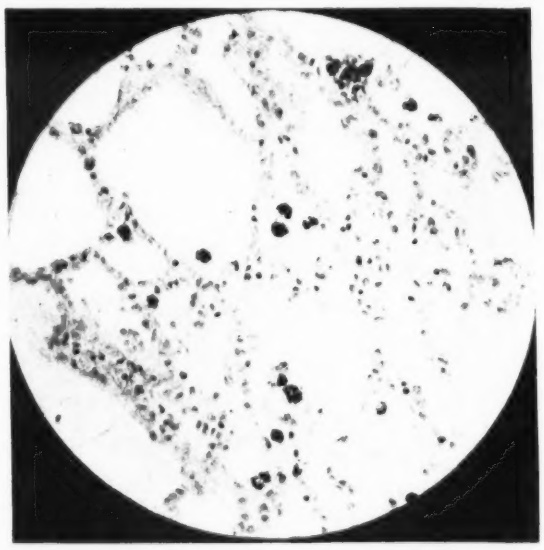
substance of the lungs. These particles block the lymphatic vessels which are important to the circulation of the organ. These solid particles set up inflammation which nature tries to heal, and in so doing the lung substance becomes thickened and leathery. This condition may not cause sickness or death directly, but it does render the lungs less able to meet the demands made upon them, with the result that more frequently than need be, sickness ensues and what might be only a minor cold results in pneumonia and death.

It was found that pneumonia was much more severe among school children living in air-polluted districts and was more likely to be accompanied with fatal complications.



MICROPHOTOGRAPH OF LUNG WITH SEVERE ANTHRACOSIS

This is a low power photograph and shows the wide distribution of the pigmentation. Enough lung is left to take care of all needs unless some other condition is contracted.



MICROPHOTOGRAPH OF CHILD'S LUNG

The black cells in the air spaces are filled with coal dust which the child has inhaled. This shows how the process begins.

Another very interesting fact was brought to light during the investigation. It was found that the work of the school children was better on bright days than on days when the sky was obscured. Going still further it was found that the average work of pupils in schools located in sections where the air was polluted by factory smoke, etc., was much inferior to that in schools located where the air was clean.

It was also found that moral conditions were also much lower in schools located in air-polluted districts. In checking over the investigations, Dr. Evans of Chicago says: "A spotless town is a more moral town than an air-polluted town. It is hard to have clean children in a dirty town and physical dirt is closely related to moral dirt and both lead to degeneracy. It is too much to expect good results in schools that exist in an air-polluted atmosphere. We cannot imbue the young with a sense of beauty when beauty itself is bedaubed."

In our craze for modern industrial development we have overlooked our children. As Dr. Wynne of New York says, "unless we stop air pollution we may look forward to a sickly deformed generation which industry itself has cheated out of the right to healthy development."

In checking over these conditions and summing them up we are lead to wonder, of what avail is all the wealth in the world when the priceless heritage of health is denied our children.

THE LINCOLN HIGH SCHOOL AND FIELD HOUSE, WISCONSIN RAPIDS, WISCONSIN

(Continued from Page 45)

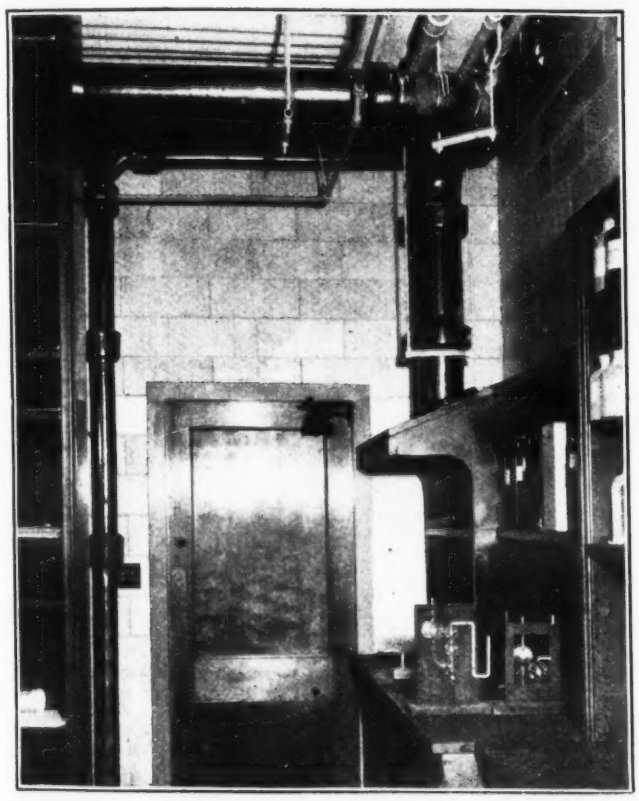
two self-contained steel boilers, fired by underfeed stokers. Coal is delivered to an overhead coal bin and flows by gravity to the stokers. A vacuum system of steam circulation with duplex motor-driven vacuum pumps is used. Radiators are cast-iron legless suspended beneath the windows. Temperature regulation is provided for all rooms. The steam mains are subdivided so that certain portions, such as the offices or the laboratory wing and toilets, can be heated without heating the entire building. A smaller steel down-draft smokeless boiler supplies steam at 8 to 10 pounds pressure, for use in the kitchen and laboratories and for heating water in the spring and fall.

The field house is heated by 16 unit heaters drawing air from a point near the floor and discharging it back into the room above the balcony. Air-supply ventilation is provided for all principal rooms. Air is drawn through intakes

(Continued on Page 84)

KNIGHT-WARE Waste Lines in Columbia Presbyterian Hospital Centre

The above photo was taken in the 10th floor laboratory and shows quite clearly the method of hanging KNIGHT-WARE Pipe and Fittings. There were 96 outlets on this floor. KNIGHT-WARE was used exclusively in this structure for all Acid Proof Waste and Ventilating Lines.



View in Chemistry Laboratory—Princeton University. All Waste, Drain and Ventilating Lines, Acid Dilution Basins, etc., at Princeton are of KNIGHT-WARE

We supply Acid-Proof Pipe and Fittings for Waste and Ventilating Lines in all bores from 1" up to 60". We are also prepared to serve you with KNIGHT-WARE Laboratory Sinks, Sumps and Catch Basins, Ventilating Flue Caps, etc., in fact, any acid-proof laboratory equipment that you may need.

for Economy, Security, Permanency, *Specify*

KNIGHT-WARE

Drain Lines : Laboratory Sinks
Ventilating Ducts : Acid Dilution Basins : Ventilating Duct Caps

GUARANTEED SATISFACTORY — MAURICE A. KNIGHT CHEMICAL STONEWARE — ACID-PROOF CHEMICAL STONEWARE

KNIGHT-WARE

"IT IS THE BODY ITSELF"

FOR HANDLING ACIDS AND CORROSIVE WASTES SPECIFY . . . .

KNIGHT-WARE PIPE AND FITTINGS

Positively *acid, alkali* and *corrosion proof* regardless of strength or temperature of solution . . . *Tough* and *Durable* and resist abrasion to the highest degree . . .

Economically and easily installed. Hung in the same manner as any other material, one hanger per length on horizontal lines and one support per ten feet on vertical risers only being required. Joints are economically made and easily poured and will withstand fully 20 pounds pressure . . .

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(Continued from Page 82)

above the roof down to the basement where it passes through air filters and tempering heaters to the fan. The air is moistened by pan-type humidifiers controlled by a humidistat. Provision is made for recirculation up to 75 per cent of the amount of air handled. The two supply fans discharge the air into large plenum chambers located under the first-floor corridors; from these chambers the air passes through individual ducts (two to each classroom) and is introduced into the rooms through six ceiling diffusers. Air is vented from the rooms through ducts leading to a large exhaust space above the third-floor corridor, from which space it passes out through ventilators on the roof or is recirculated back through the intake shaft. The intake exhaust and recirculation dampers are controlled by pneumatic switches located in the fanroom. Separate exhaust fans are provided for toilets, lockers, chemistry fume hoods, kitchen and similar spaces.

Plumbing

The soil, waste, and downspout piping is cast iron inside the building, tile outside. Water piping is genuine wrought iron, galvanized. The laboratory waste piping is rustless cast iron. Hot and cold water is supplied to all fixtures. Hot water is circulated by a small motor-driven pump. A gas machine is installed to supply gas to the laboratories, no city supply being available. Lavatories are china with self-closing faucets. Water closets are syphon jet with flush valves. Drinking fountains are angle stream type, in color, recessed in corridor walls. Individual showers are provided for both boys and girls and, in addition, a group shower is provided for the girls by which twenty girls are given a shower simultaneously, the temperature of the water being controlled by the instructor by means of a large Powers mixing valve, and a progressive shower is provided for the boys in which they pass through a lane about 40 feet long having four lines of spray piping on each side, the temperature of the water being graduated in four stages from warm at the entrance to cool at the exit.

Liquid-soap valves are installed at each lavatory and shower. All exposed piping is chromium plated. All hot- and cold-water piping and steam piping is insulated and the covering is painted in distinctive colors for each different service.

Electric Wiring

Electricity is brought into the building at 4,000 volts to a transforme- vault where it is stepped down to 220 volts for power and 110/220 volts for lighting. All distributing panels are dead-front safety type. Lighting fixtures in classrooms are inclosed-type opal globes with sufficient lamp wattage to produce about ten foot-candles.

The field house is lighted by reflectors using 1,000- and 500-watt lamps.

Kitchen equipment, such as the range, bake-ovens, etc., is electric. A master clock and program machine is installed in the office with secondary clock in the classrooms and program bells in the classrooms, corridors, and on the exterior of the building.

An automatic telephone system is installed in all classrooms. Conduit is installed for a centralized radio system throughout the building. A laboratory panel and motor-generator set in the chemistry and physics laboratory allows the instructor to supply either 110 volt a.c. or d.c. current, or any low-voltage current from 2 to 24 volts to any student's table or demonstration table.

The music-room stage is provided with footlights and border lights, each wired for three colors, stage plugs, etc., and a dimmer cabinet with twelve dimmers, permanently connected, controls the house and stage lighting.

The field-house stage has three sets of border lights and one set of foot lights, all wired for three colors, and the necessary floor pockets, work lights, etc. In addition there are four 1,000-watt spotlights on the first truss in the field house. The lights are controlled by a dimmer cabinet located on the stage balcony, having control switches for 48 circuits, with two sets of bus bars arranged so that a lighting effect for one scene can be present during the progress of the preceding scene.

There are twelve dimmers of varying capacity arranged with plugging cords and plug outlets so that any circuit can be placed on the dimmer control or can be operated directly through the switch, giving a very flexible control, of a large number of circuits and keeping the cost of the control board at a minimum.

Exterior of Building

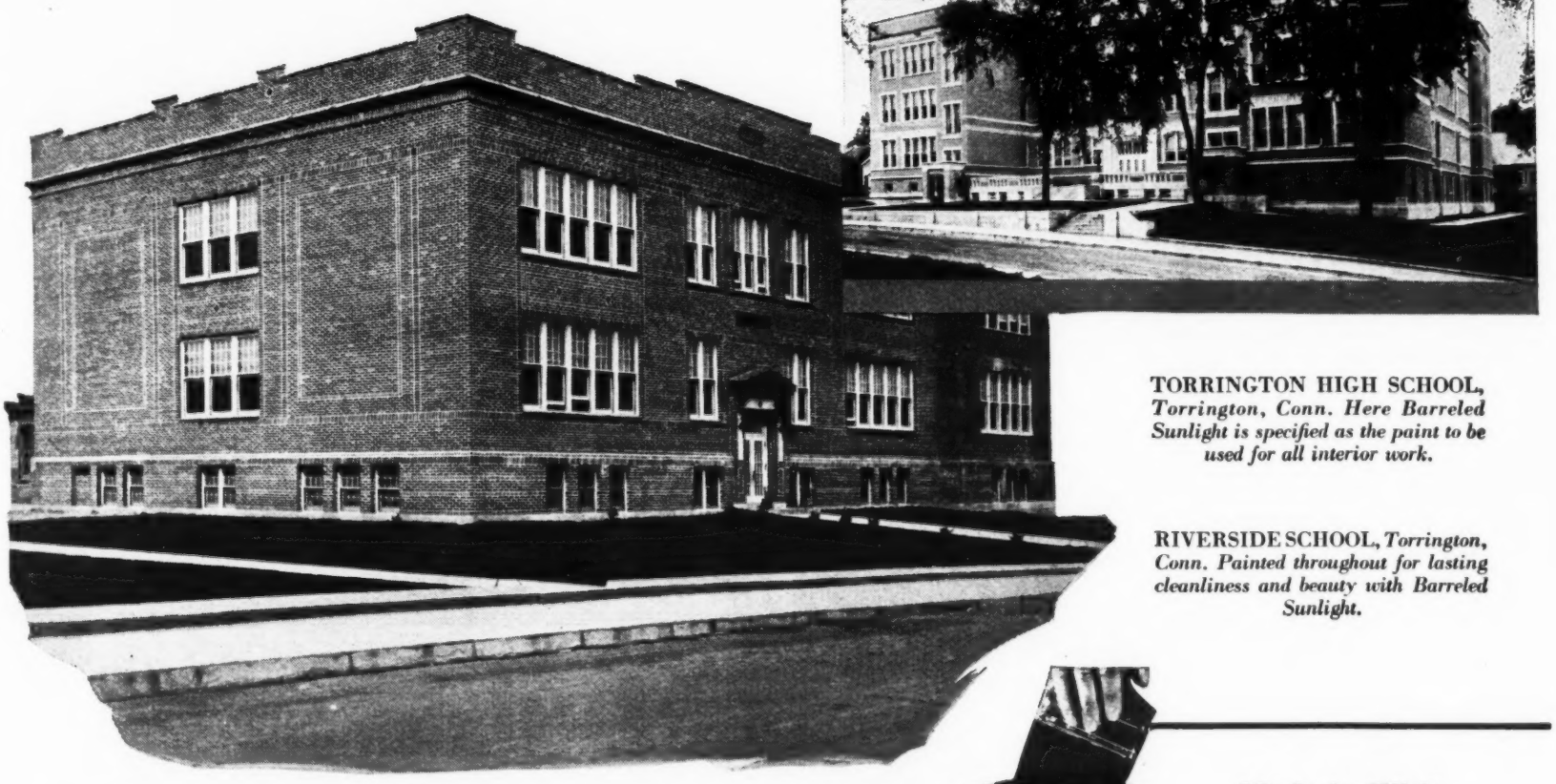
The exterior of the building, Greek in character, is in light-gray iron-spot brick with stone trim. The usual classical overhanging cornice has been eliminated and a saving of $12,000 effected thereby. Cast-stone panels of the Parthenon frieze add much interest to the entrance front of the field house and to the end elevations of the academic building. All windows throughout are of steel.

The building, which was completed in July, 1931, contains approximately two million cubic feet, every inch of which is usable space, there being no unfinished attics or basements which are wholly unsuited to schoolwork.

(Concluded on Page 87)

Torrington Tried it in One School

. . . NOW THEY USE IT FOR ALL 16



TORRINGTON HIGH SCHOOL, *Torrington, Conn. Here Barreled Sunlight is specified as the paint to be used for all interior work.*

RIVERSIDE SCHOOL, *Torrington, Conn. Painted throughout for lasting cleanliness and beauty with Barreled Sunlight.*

THE City of Torrington, Connecticut, has 16 fine schools...ten urban—six suburban. Each, of course, has painted interiors...which must be maintained.

For one of these maintenance jobs, Barreled Sunlight was used. The resulting difference was obvious...and pleasing. Surfaces painted with Barreled Sunlight were smoother... had richer lustre and depth. They were easier to clean...stayed clean longer.

Now Barreled Sunlight is used for all upkeep painting in every Torrington school building. Eventually each school will be painted throughout with this distinctive finish.

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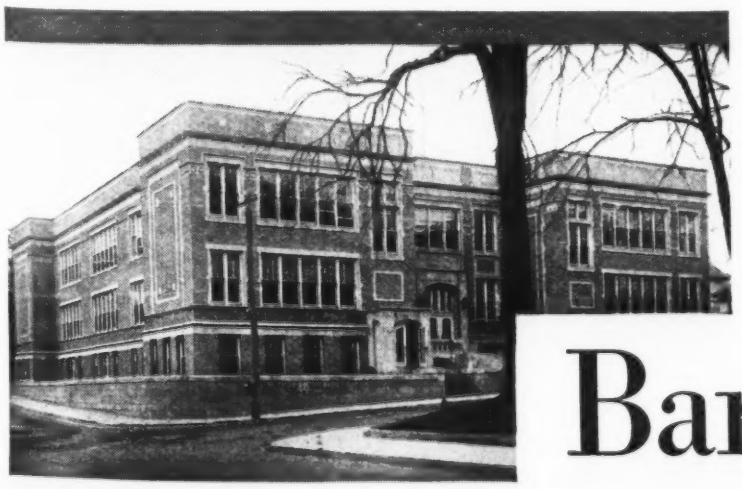
Smooth as tile...with a handsome lustre . . . rich depth . . . Barreled Sunlight is comparable in beauty only to the finest enamels. Yet it costs less per gallon and goes farther on the job.

The fingerprints, smudges, dust and dirt, so common to school life, wipe off easily with a damp cloth —as easily as from tile. Remarkably durable, Barreled Sunlight survives repeated washings without losing its original lustre.



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Barreled Sunlight

Reg. U. S. Pat. Off.

(Concluded from Page 84)

Local contractors were used as far as possible in all branches of work, which was done for a unit cost of 27 cents per cubic foot and included everything throughout — the building proper, the mechanical trades, and all fixed and movable equipment.

TWO INDIANAPOLIS SCHOOLS

(Concluded from Page 47)

tional classrooms, of which one is considerably larger, so that it may serve for special class groups in music, etc.

The building is heated by means of a vacuum-steam system, with thermostatic temperature control and unit ventilation.

The building was planned and erected under the supervision of Messrs. McGuire & Shook, architects, and the first unit of twelve classrooms, assembly hall, etc., cost $205,000.

BRECKINRIDGE TRAINING SCHOOL BUILDING, MOREHEAD, KENTUCKY

(Concluded from Page 48)

home-economics and science laboratories, as well as providing an entrance to the gymnasium. This floor also houses such auxiliary rooms as the health unit and the teachers' restroom.

Some of the out-of-the-ordinary features of a typical critic teaching unit are: (1) Each room has built-in library space for the 500 books that the grade will need. (2) Beneath the windows are built-in short lockers for individual storage for students. (3) The lower grades have built-in lockers inside the room instead of cloakrooms. (4) In the lower grades each room has individual toilet facilities. (5) Ample built-in cabinet space is provided for the teacher for storage and display of materials. (6) The two small practice rooms at the end of a regular classroom permits three practice teachers to be at work in one grade at the same time.

The building is of brick and stone construction, with corridor and stair finish in terrazzo. The walls to head height are finished in glazed brick. Heat is furnished from the central heating plant of the college. A complete electric system has been installed for lighting, power, refrigeration, and for the operation of the electric-clock program system.

The building has a total capacity of about 500 students. The building alone cost $225,000, and the equipment has cost $20,000. This building, together with the other structures of this college, was designed by Messrs. Joseph and Joseph, architects, Louisville, Ky.

MARKED PROGRESS IN CONSOLIDATING RURAL SCHOOLS

(Concluded from Page 52)

the faculties of various schools had emphasized the popularity and efficiency of certain schools to the extent that the distance from the railway station did not signify so much. Consolidation had entered into the problem as a very valuable factor. The schools were showing marked improvement under better supervision and better teaching conditions. After studying the schools for several months with a view of regrouping them, the superintendent, with the aid of the supervisors, and with the approval of the board of education, reclassified the schools into three groups, placing 11 schools with a gross enrollment of 4,656 into the first class; 9 schools with an enrollment of 766 pupils into the second class; and 15 schools with an enrollment of 503 pupils into the third class.

In this way a ten-year program which has eliminated about 20 small inferior schools, came practically to an end. Until school busses again double their capacities and abilities, and roads are suitable to new conditions, the process of consolidating schools in this district is not expected to be of material importance. It is now the responsibility of school officials to make these central schools enough better than the old ones to fully justify the steps which have been taken.

IS THE SMALL ELEMENTARY SCHOOL BEING NEGLECTED FOR ITS HIGH SCHOOL?

(Concluded from Page 40)

Now, that a period of depression has settled down on this country and the upward trend in school costs has been arrested at least temporarily, will the decreases made in school cost during the depression, be sliced in the proportion of 3 to 1 from the high school and the elementary school? Or, will the elementary school be the first to feel the effect of the pruning knife? Is the small elementary school being neglected for its high school?

NEWS OF OFFICIALS

♦ MR. THOMAS H. PALMER, assistant business manager of the board of education at Flint, Mich., died on September 17, of injuries received in an automobile accident.

♦ DR. C. L. BOYD was recently reëlected as a member of the school board of Vincennes, Ind. The board has reorganized for the year, with the election of Dr. Boyd as president, MR. JOHN L. BAKER as secretary, and J. B. E. LAPLANTE as treasurer.

♦ MRS. BELLE KARNS MORRIS has resigned from the board of education of Knoxville, Tenn., after completing nine years of service on the board. A resolution of appreciation was presented by Mrs. Wiley Morgan, in which particular commendation was given for her work on the board's cafeterias and her activities for the improvement of the school grounds.

Book News

The Science of Human Living

By Mae Johnson Corwin and Walling Corwin. Cloth, 477 pages, illustrated. Harr Wagner Publishing Company, San Francisco, Calif.

This text discusses human health as a science subject for pupils on the junior-high-school level. The thesis of the book is that human health depends upon the application of scientific principles and that insofar as these principles are known and used, men and women will be healthy and long-lived.

The book is divided into four general sections: (1) food and health; (2) personal health as developed from the scientific care of the human body; (3) general health as influenced by contacts with the world around us, and (4) health in the home.

The book departs from the old type of organization by chapters and presents the subject matter in the form of units or projects involving questions to be studied, things to be done, and supplementary reading to be carried on. The language throughout is simple and the required work will attack the abilities of children in the seventh and eighth grades.

Health Horizons

Compiled by Jean Broadhurst and Marion O. Lerrigo. Cloth, 516 pages. Silver, Burdett & Company, New York City.

This book summarizes the recent points of view on health and health education as expressed in the leading books, professional reviews, and popular magazines. It will give readers an insight into the present tendency in health service and education.

Creative Teaching in the Field of Spelling

By Helen Miller, S. E. Courtis, and Garnette Watters. Cloth, 143 pages. Wallace Publishing Company, Des Moines, Iowa.

This book is the outgrowth of four years of work in teaching spelling in the public schools of Hamtramck, Mich. The purpose of the work is to take spelling out of the field of formal memorization and to place it with other subjects in the school which have been vitalized and socialized.

Organization and Administration of Supervision

By Ernest O. Melby. Cloth bound, 158 pages. Published by Public School Publishing Company, Bloomington, Ill.

The author, who is an associate professor of education at the Northwestern University, assumes that the organization of supervision is rapidly becoming one of the major problems of the superintendent who must not only know how to supervise but also know how to direct the supervisory efforts of others.

In building up his book the author weighed and measured the practices in the organization and administration of supervision in cities ranging in size from 10,000 to 20,000 population. This brought to him a perspective which covered a wide field and enabled him to determine upon the most efficient supervisory activities and devices. While the text is largely descriptive of the approaches and practices employed, the discussions and conclusions in which the author engages are most illuminating.

He sums up his findings by saying: "In conclusion it must be admitted that the plan of supervisory organization adopted for any school system will depend upon those factors of school organization, teacher training, and educational objectives which obtain in that system. These factors are dynamic rather than static. It is, therefore, to be expected that constant modifications must be in the organizations charged with the responsibility for improvement of teaching, as well as in the activities which these organizations carry on."

Makers of Our Nation

By R. P. Halleck and Juliette Frantz. Cloth, 358 pages. American Book Company, New York City.

This story aims to give sufficient outstanding facts to show the pupil how the work of the patriot, the pioneer, the inventor, the explorer, and the captain of industry have made the United States a leading nation of the world. The authors have aimed at simplicity, concrete facts, and the presentation of life and ideals in action.

The book begins with the earliest patriots and continues almost to the present. Some of the earliest ones are Daniel Boone, George Washington, and Samuel Adams. Of the more recent ones are Thomas Edison, Theodore Roosevelt, Woodrow Wilson.

The book is complete, with maps, a number of colored pictures, a list of things to do, and some helpful book references.

A Child's Third Number Book

Part 1. By Saul Badanes. Cloth, 148 pages. Price, 64 cents. The Macmillan Company, New York City.

The work for the first half of the third grade carries the child well into multiplication. As in the previous books, the author insists upon the objective use of numbers, self-expression and self-activity. The drill material is especially fulsome.

The Alpha Individual Arithmetics

By the Supervisory Staff of the Summit Experimental School, Cincinnati, Ohio. Paper cover, 218 pages. Published by Ginn and Company, Boston, Mass.

Here is an arithmetic which combines a textbook and workbook in one volume. It provides drill and test service and a diagnostic program. The special function of this volume, which constitutes part one of book six, is to concern itself with the four fundamental processes in integers, in common and decimal fractions, in denominate numbers and problem situations requiring the application of these processes.

The pupil is led into actual business transactions. Dot and Dick have some money to spend, go shopping, and invest in articles which involve quantity, numbers, and cost. Every phase of common arithmetic is brought into play. Self-interest excites judgment and prompts accuracy.

The transactions take some interesting turns and involve a variety of products and situations. Fractions must be employed; percentages must be figured; costs must be determined. The illustrations,

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(Continued from Page 88)

which are supplied by Cornelia Hoff, do much to make the text more lucid and attractive.

Motion Pictures in History Teaching

By Daniel C. Knowlton and J. Warren Tilton. Cloth, 186 pages, illustrated. Price, $2. Yale University Press, New Haven, Conn.

The authors of this book present their experiments made in the public schools of New Haven, to determine the value of motion pictures as an aid to the teaching of American history.

The program upon which the experiments are based include some of the stirring chapters in the early colonial history of the United States. The program also contrasts life in Europe versus life in America. The story of the Indians, pilgrims, and Puritans, the revolutionary days, etc., is told. The measurements of the value of this form of visual education is subjected to the Knowlton test.

In view of the increasing public interest in visual education and the wide recognition of the service rendered in teaching through the educational motion picture this volume makes a helpful contribution to the subject.

Legal Aspects for Records of Proceedings of Boards of Education

By M. R. Keyworth. Cloth, 171 pages. Published by The Bruce Publishing Company, Milwaukee, Wisconsin.

Here is a timely book. While there are many laws governing the administration of the schools of this country, there is also much vexatious litigation seeking to interpret these laws and to establish the rights and equities involved between the contesting factors. Prevention is better, however, than the cure. An intelligent approach to school-administrative procedure implies primarily an observance of the legal restrictions, and the consequent avoidance of costly litigation.

The author, himself an experienced and successful school administrator, has provided a volume in which he shows (*a*) the source and limits of the power of the board to pass resolutions; (*b*) the procedures to be followed which give legality to the form of the resolutions as well as to their substance; (*c*) the requisite legal observances to be made in recording resolutions and proceedings in order that the records of the board may be complete and legal.

The court records show innumerable cases affecting school matters which have grown out of an irregular approach to board-of-education action, or to a lack of understanding as to the significance of properly recorded minutes and proceedings. The board of education is primarily a legislative body whose findings and conclusions become binding in law, frequently involving rights and considerations of considerable moment. Thus the keeping of a record of the proceedings is more than a mere perfunctory task, but an act which may have a far-reaching effect as far as contractual relations and other official acts are concerned.

In establishing a better knowledge of the legal aspects of records of the proceedings, and at the same time giving some notion of the situations which may and do arise, the author addresses himself to the following questions:

1. Can a board of education transact business legally at an illegal meeting?
2. Must the return of the notice of a special board meeting be recorded in the minutes?
3. What transactions can be legally made at an adjourned meeting?
4. Can the board make its own rules and regulations? If so, can it make a rule to pass a resolution by a majority vote if the statute of the state requires a two-thirds vote?
5. Does a majority of a quorum constitute a legal act of the board?
6. Who can serve as a clerk *pro tempore?*
7. Must a board affirm its jurisdiction in the resolution passed?
8. How is a refusal to vote on the part of a board member interpreted in the minutes?
9. How must yea and nay votes be recorded in order to be legal?
10. Who may amend the minutes?
11. What is the procedure for amending minutes?
12. Under what conditions may a board reconsider or rescind a previous act recorded in the minutes and the minutes approved?
13. Who has a right to inspect the records of school-board proceedings?
14. Who has possession of the records of the board of education?

At this point the author lays down the basic principle that the minutes of the board of education should contain a true, complete, and legal record of all transactions the board of education is legally authorized to make. The conclusion is based upon the numerous court decisions which hinged upon such records. The statutes of the several states expressly provide that all the official acts of the board of education shall be kept in a reliable manner. The exact language employed provided in each instance is here told.

Just what constitutes a legal meeting? "A board of education is a corporate entity. Unless doing something legally delegated by the board to him, a board member, when not sitting at a legal board meeting, has no more power or prerogatives than any other citizen of the district. The members of a board may all severally and separately agree to a transaction but such transaction has no force unless passed at a legal meeting of the board. The decisions of the courts are unanimous on this point."

The numerous court decisions quoted by the author illustrate the statutory requirements of a legal meeting. They establish the principle that "Notice of any meeting of the board of education, regular or special, must be given to all members; notice of regular meetings is presumed to be given by virtue of statutory requirement or board resolution; special notice of a special meeting must be given in accordance with the terms of the state statute, must state the purpose for which the special meeting is called, and no business can be transacted at the special meeting except that for which it is called."

On the subject of adjourned meetings the law provides that "A board of education may consider any transaction at an adjourned meeting that it might have considered at the original meeting so adjourned; any subject may be considered at an adjourned regular meeting that might have been considered at the regular meeting so adjourned.

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(Concluded from Page 90)

No subject may be considered at any adjourned special meeting that might not have been considered at the original special meeting so adjourned."

The adoption of a set of rules and regulations for the conduct of meetings is most expedient, but such rules and regulations must not be in conflict with the statutory requirements or common-law principles. Parliamentary law, the manner of voting, the constitution of a quorum, the majority vote, the refusal to vote, blank ballots, the yea and nay, power to adjourn — all are discussed in the light of court decisions.

The fact that a board of education can only speak through its records, means that an action that is not recorded becomes ineffectual. Thus the courts hold that "the records must be complete, truthful, and legal, as a necessary protection to, and information for, the public, the board itself, and parties with vested rights. Besides, there can be no legal records without a legally authorized person to keep them."

The author, in his closing chapters, summarizes all the essential principles which enter into the subject of recording official proceedings. He also clarifies many of the technical considerations by applying forms, blanks, etc., and thus becomes helpful to those intrusted with recording labors.

School administrators who desire to avoid misunderstandings and legal entanglements, proceed in an informed way and upon safe lines in the performance of their legislative duties, will find this book most helpful and serviceable.

The Model Aircraft Builder

By Chelsea Fraser. Cloth, 384 pages. Published by Thomas Y. Crowell Company, New York City.

There is no vehicle which appeals to the imagination of a mechanically inclined student as does the modern airplane. The book here presented will be received with delight by the boy who loves to tinker with things mechanical — things he can fashion with his own hands. Out of the faculty of fashioning things, spring mechanical skill and inventive genius.

While the text concerns itself with the thousand and one things that enter into the construction of a model airplane, and the various types of airflight apparatus, it also deals with the technique of air travel, airports, and the like.

The student interested in aëronautics will find this book most instructive and helpful.

Useful Science

By H. T. Weed and F. A. Rexford. Cloth, 238 pages. J. C. Winston Co., Philadelphia, Pa.

The authors approach the subject of science for beginners with the natural and logical idea of going from the known to the unknown, of teaching children to observe the commonest, everyday things — water, air, fire, trees, land, rocks, food — and to learn the facts which have an influence on human life and welfare. Explanations, questions, experiments, are of the simplest kind.

NEW PUBLICATIONS

Report on Equipment, Apparatus, and Materials for Teaching Science in the Secondary Schools of Massachusetts. Bulletin No. 8, 1930, issued by the division of elementary and secondary schools of the state education department, Boston, Mass. This report, which deals with equipment and apparatus for the teaching of this subject, is directed to the smaller high schools, where experience shows that the facilities for teaching science are often inadequate. It takes up the arrangement of the rooms, the installation and use of apparatus and equipment, and offers a list of suggestive materials and apparatus for teaching the subject.

Teaching Devices on the High-School Level. By S. Gertrude Hendrix. University of Illinois Bulletin No. 56. Price, 30 cents. Published by the University of Illinois, Urbana, Ill. This study lists recent devices which have been found useful for reaching objectives and for increasing interest in classes in mathematics, physical science, nature science, social science, English, and foreign languages.

Regulations of the Fire Underwriters Governing First-Aid Appliances. Issued by the National Board of Fire Underwriters, 85 John St., New York, N. Y. The booklet contains rules governing fire extinguishers, hand hose, and the use of sand fire pails and soda and sawdust.

Constitutional Basis of Public-School Education. By Edwin S. Lide. Leaflet No. 40, July, 1931, issued by the U. S. Office of Education. In this study are presented those provisions relative to public-school education which have been written into the constitutions of the several states. The first part of the study is devoted to the provisions relating to education at different periods in the nation's history and those in different geographical sections of the country. The second part is an analysis of the types of provisions relating to education as contained in the constitutions of the various states.

Cumulative Reading Record. Published by W. Wilbur Hatfield, Chicago, Ill. This card records both voluntary and required reading and gives the teacher an opportunity for keeping a record of rating tests and scores.

A CORRECTION

The interesting elementary school published in the September issue of the SCHOOL BOARD JOURNAL as located in Daytona Beach is the Boston Avenue Elementary School of Deland, Florida. Mr. George W. Marks, county superintendent of schools, is chief executive of the school system.

MAKING EDUCATIONAL RESEARCH FUNCTION

(Concluded from Page 30)

make impotent the research quack and the pseudoscientist.

4. Every school and school system should have a research program each year, and this program should be based upon the most urgent needs of the local situation. Often the program agreed upon will require several years to consummate. Every teacher, principal, and other school employee should have an interest, and a part, in planning and in carrying through this program. This program of research should be carefully planned and paid for regularly. In the first place, such a program cannot fail to provide information which will be invaluable in improving the work of the school; in the second place, such a program will help to keep alive in every employee the spirit of inquiry, and with an aggressive spirit of inquiry the work of the school cannot fail to continue its rapid improvement.

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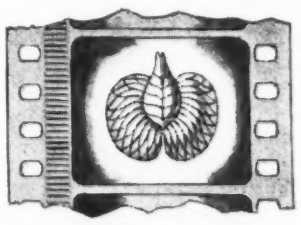

of playing technique at the same time the tone quality of the instrument can be studied. In natural science films, time-lapse photography speeds up movements otherwise so slow as to be imperceptible to the human eye, as in the picture "Plant Growth."

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EDUCATIONAL TALKING PICTURE EQUIPMENT

A PRACTICAL ECONOMY PROGRAM

Under the direction of Supt. O. A. Wirsig, of Kearney, Nebr., an economy program has been inaugurated, which is intended to make for economy in the operation of the schools, while at the same time maintaining the present educational opportunities of school children. The program, which seeks to adequately finance the schools so that the children will not suffer from the economic conditions, offers a number of suggestions for attaining this end. It reads as follows:

a) *Lights.* Avoid gloom or glare. Use artificial lighting only when *actually* needed but not until you have secured the maximum natural lighting possible for your room. Roll window shades entirely to the top and make other necessary adjustments to secure the natural light which is the best. I believe there are no classrooms in the entire system that need artificial light when the sun is shining. On cloudy days there are a few classrooms that may need artificial light. In our newer buildings where the windows are banked on one side, there is ample natural light. Furthermore, when you leave a classroom, auditorium, gymnasium, or office, turn off the lights. I am sure that we can avoid needless expense if teachers will be careful and conscientious about this matter.

b) *Mimeographing.* It is often a great help and sometimes very necessary for teachers to have mimeographed material. Try to keep this to the necessary minimum. It is not desirable or necessary to outline an entire textbook and have this outline placed in the hands of children. Mimeographed material is more difficult to read than printed — it costs more than textbook material. Be considerate of the time of office help, remembering that stencils and mimeograph paper are considerable items of expense. Check yourself on whether the material is necessary and whether it will help in teaching and aid you greatly in your work. Duplicators with gelatin rolls should be kept in a cool place away from radiators and sunshine. Store them in a basement room during the summer months.

c) *Care of Equipment and Books and Economical Use of Supplies.* This is important. I have found that teachers for the most part are careful and look well after the equipment and supplies. Textbooks are rather costly. Teach children how to use and care for textbooks. Mend torn leaves. Keep equipment mended and in good repair.

In the elementary grades where general school supplies are furnished, each teacher has the responsibility to see that they are economically used. Children should write on both sides of penmanship paper. Use penmanship paper only when ink is used. Use lead-pencil paper for arithmetic and scratch work. In the upper grades where pupils furnish their own supplies, teachers should check up on the economic use, even though they are purchased by the parents. Keep supplies under lock and key. Don't have them exposed too generously at any time.

d) *Glass Breaking.* If there is much window light or glass breaking in your building, you might conduct a discussion and campaign against glass breaking.

e) *Economical Use of Pupil and Teacher Time.* Do not permit pupils to loaf and waste their time. Demand persistent effort and progress. The school exists for the worker. It is a place for business — a great opportunity.

f) *Attendance.* Teach pupils to look after their health, keep well, and keep in school every day. It costs on an average 48½ cents a day for each pupil. Each day a pupil is absent, that half dollar is thrown away.

g) *Failures.* Reduce your pupil failures and repetitions. It costs $85 per pupil per year to provide schooling. If a pupil fails and repeats a grade or subject, you have thrown away that amount of money. Do not wait until your pupils fail. If they are slipping now, get busy!

h) *Repairs.* "A stitch in time saves nine" — an old saying but true. Ask your janitor to make repairs before things go to pieces about your room or building — furniture, tables, desks, floors, doors, maps.

i) *Use Scraps and Odd Materials.* When boys cannot afford to pay for their manual-training lumber, they might make equipment for the school out of school-furnished lumber. They might also bring old pieces of lumber from home and use this for their own projects.

j) *Health.* Above all, live as healthfully as possible, so that it will not be necessary to employ substitutes to take your work.

ORGANIZATION OF BUSINESS MANAGER'S OFFICE

One of the rules of the Boston school committee (school board) provides that an auditing firm shall from time to time make recommendations designed to improve the service of the business manager's office. A recent report notes that this office is organized with the following departmental classifications: (1) secretarial; (2) appropriation; (3) proposal and order; (4) invoice; (5) voucher; (6) cost accounting; (7) payroll; (8) cashier; (9) fuel engineer. The supply department is organized with a chief storekeeper, receiving clerk, storekeepers, laborers, chauffeur and mechanic, and clerical assistants.

The expert accountants find this set-up workable and satisfactory. They recommend that in the purchase of supplies the practice of buying on lump-sum bids be abandoned, and that individual bids for each item be substituted.

PROVIDING CONTROLLED EXPERIENCE FOR BEGINNERS

Stoneham, Mass. In order to offer opportunity to graduates of normal schools and colleges to obtain classroom teaching experience, and to provide needed assistance in an economical manner, the administrative department has adopted the following plan for the school year 1931–32:

Under a mutual agreement, a cadet teacher will be allowed to give her services free of charge to the school department, except when acting as a substitute teacher who is absent. The cadet teacher agrees to abide by all the rules and regulations of the school department, to work without pay, and to go to any room to which she is assigned. The school department, on the other hand, agrees to give the cadet teacher opportunity to obtain experience by assisting in classwork, to have the teacher supervised and assisted, and to release the teacher at any time when she has an opportunity to obtain a regular position in another town.

In order to be accepted as a cadet teacher, the applicant must rank in the first, second, or third quarter of his or her class in the normal school, or college, from which she was graduated. The applicant must have a satisfactory recommendation from the normal school, or college, as to fitness for teaching. Graduates of private normal schools, or colleges, must pass such examinations as the superintendent dictates.

It is understood that the town is under no obligation to employ an applicant who has given one or more years as a cadet teacher, but that each applicant shall be given the same consideration as though she had gained experience elsewhere.

Teacher Agencies

Directory of Equipment and Supplies

ACID-PROOF STONEWARE
Knight, Maurice A.

ACOUSTICAL TREATMENT
Armstrong Cork & Insulation Co.
Cabot, Inc., Samuel
Celotex Company, The
Johns-Manville Corp.

ADJUSTABLE WINDOW SHADES
Athey Company, The
Draper Shade Co., L. O.
Maxwell & Co., Inc., S. A.

AIR CONDITIONING
American Air Filter Company, Inc.
American Blower Company
Buckeye Blower Company
Nelson Corporation, The Herman

AIR WASHERS
American Blower Company

ASH HOISTS
Gillis & Geoghegan

AUDITORIUM SEATING
American Seating Company
Heywood-Wakefield Co.
Kundtz Co., The Theodor
National School Equipment Co.
Peabody Seating Co.
Steel Furniture Co.
Welch Mfg. Company, W. M.

AUTOMATIC TELEPHONE SYSTEMS
Automatic Electric, Inc.

BIOLOGICAL SUPPLIES
Welch Mfg. Company, W. M.

BLACKBOARD CLEANERS
Beckley-Cardy Company
Eagle Soap Corporation
Huntington Laboratories
Oakite Products, Inc.
Palmer Products, Inc.
Vestal Chemical Company
Weber Costello Company

BLACKBOARDS—MANUFACTURED
Beckley-Cardy Company
K-M Supply Company
N. Y. Silicate Book Slate Co.
Prose-Maco Mfg. Company
Standard Blackboard Company
Valleyco Company, The
Weber Costello Company

BLACKBOARDS—SLATE
Natural Slate Blackboard Co.
N. Y. Silicate Book Slate Co.

BLEACHERS
Wayne Iron Works

BOILER COMPOUNDS
Eagle Soap Corporation
Hillyard Chemical Company
Huntington Laboratories
Vestal Chemical Company

BOILERS
Spencer Heater Company

BOOK CASES
Kewaunee Mfg. Company
Peterson & Company, Leonard
Remington Rand, Inc.
Welch Mfg. Company, W. M.

BOOK COVERING MATERIALS
du Pont de Nemours & Co., E. I.

BOOK COVERS
Holden Patent Book Cover Co.

BOOK PUBLISHERS
American Book Company
Beckley-Cardy Company
Bruce Publishing Co.
Ginn & Company
Gregg Publishing Company
Laidlaw Brothers
Macmillan Company, The
Merriam Co., G. & C.

BOOKKEEPING MACHINES
Remington Rand, Inc.

BRONZE TABLETS, SIGNS, LETTERS
Russell & Sons Co., Albert

BRUSHES
Eagle Soap Corporation
Hillyard Chemical Company
Huntington Laboratories
Vestal Chemical Company

BULLETIN BOARDS
Beckley-Cardy Company
Kewaunee Mfg. Company
N. Y. Silicate Book Slate Co.
Sheldon & Company, E. H.
Standard Blackboard Co.
Weber Costello Company
Welch Mfg. Co., W. M.

BUSES
Dodge Brothers Corporation
York-Hoover Body Corp.

CABINETS—STORAGE—STEEL
Durabilt Steel Locker Co.
Medart Mfg. Company, Fred
Northwestern Steel Products Co.

CABINETS—WARDROBE—STEEL
Medart Mfg. Company, Fred

CAFETERIA EQUIPMENT
Blickman, Inc., S.
Kewaunee Mfg. Company
Sheldon & Company, E. H.
Standard Gas Equipment Corp.
Welch Mfg. Co., W. M.

CAFETERIAS
Asbestos Buildings Company

CHAIRS
American Seating Company
Beckley-Cardy Company
Clarin Manufacturing Co.
Fort Massac Chair Co., The
Heywood-Wakefield Company
Maple City Stamping Company
Peabody Seating Co.
Rastetter & Sons Co., Louis
Royal Metal Mfg. Co
Welch Mfg. Co., W. M.

CHALKS
American Crayon Company
Beckley-Cardy Company
Binney & Smith Co.
Weber Costello Company
Welch Mfg. Co., W. M.

CHARTS
Nystrom & Co., A. J.
Weber Costello Company

CHEMISTRY SUPPLIES
Welch Mfg. Co., W. M.

CLASSROOM FILMS
Eastman Teaching Films, Inc.
Electrical Research Products, Inc.
Phototone Equipment Corp. of America
R. C. A. Photophone, Inc.

CLEANERS—FLOOR
Oakite Products, Inc.

CLEANING COMPOUNDS
Continental Car-Na-Var Corp.
Eagle Soap Corporation
Hillyard Chemical Co.
Huntington Laboratories
Oakite Products, Inc.
Vestal Chemical Co.

CLOCKS—PROGRAM
International Business Machines Corp.
Murphy-Davis Signal Co.
Standard Electric Time Company

COMMUNITY BUILDINGS
Asbestos Buildings Company
Harris Brothers Co.

CORK TILE AND CORK CARPET
Armstrong Cork & Insulation Co.
Congoleum-Nairn, Inc.

CRAYON COMPASSES
N. Y. Silicate Book Slate Co.
Weber Costello Company

CRAYON TROUGHS
Dudfield Manufacturing Company
Weber Costello Company

CRAYONS
American Crayon Company
Beckley-Cardy Company
Binney & Smith Co.
Weber Costello Company
Welch Mfg. Co., W. M.

DAMPPROOFING
Sonneborn Sons, L.
Truscon Steel Company

DEADENING QUILT
Cabot, Inc., Samuel
Celotex Company, The

DESKS—OFFICE
Beckley-Cardy Company
Imperial Desk Company
Welch Mfg. Co., W. M.

DIPLOMAS
Beckley-Cardy Company
Welch Mfg. Co., W. M.

DISHWASHING COMPOUNDS
Eagle Soap Corporation
Hillyard Chemical Company
Huntington Laboratories
Oakite Products, Inc.
Vestal Chemical Company

DISINFECTANTS
Continental Car-Na-Var Corp.
Eagle Soap Corporation
Hillyard Chemical Co.
Huntington Laboratories
Vestal Chemical Company

DOMESTIC SCIENCE EQUIPMENT
Christiansen Co., The
Kewaunee Mfg. Co.
Kimball Company, W. W.
Peterson & Co., Leonard
Sheldon & Company, E. H.
Welch Mfg. Co., W. M.

DOORS
Richards-Wilcox Mfg. Co.

DOORS—STEEL—FIREPROOF
Detroit Steel Products Co.
Truscon Steel Company

DRAFTING DEPT. FURNITURE
Christiansen Co., The
Kewaunee Mfg. Company
Sheldon & Company, E. H.
Welch Mfg. Co., W. M.

DRIERS—HAND AND FACE
Chicago Hardware Foundry Co.

DRINKING FOUNTAINS
Crane Co.
Rundle-Spence Mfg. Company
Taylor Company, Halsey W.

DUPLICATORS
Dick Co., A. B.
Ditto Incorporated
Standard Mailing Machines Co.

ELECTRIC DRIERS
Chicago Hardware Foundry Co.

ELECTRICAL EQUIPMENT
Westinghouse Electric & Mfg. Co.

ELECTRICAL REFRIGERATION
General Electric Company

ENGRAVERS
Premier Engraving Company

ERASER CLEANERS
Weber Costello Company

ERASERS
Beckley-Cardy Company
Weber Costello Co.

FENCES
Anchor Post Fence Company
Page Fence Association
Wayne Iron Works
Wickwire Spencer Steel Company

FILING SYSTEMS
Remington Rand, Inc.

FIRE ALARM SYSTEMS
International Business Machines Corp.
Standard Electric Time Company

FIRE ESCAPES
Butler Mfg. Co.
Potter Manufacturing Corp.

FIRE EXIT LATCHES
Potter Manufacturing Corp.
Vonnegut Hardware Co.

FIRE INSURANCE
Home Insurance Company, The

FIREPROOFING MATERIALS
Asbestos Buildings Company

FLOOD LIGHTS
Giant Mfg. Co.
Hill-Standard Company

FLOOR COVERING
Armstrong Cork & Insulation Co
Congoleum-Nairn, Inc.
Heywood-Wakefield Co.
Sloane Co., W. & J.

FLOOR FINISHES
Continental Car-Na-Var Corp.
Eagle Soap Corporation
Finnell System, Inc.
Hillyard Chemical Company
Huntington Laboratories
Johnson & Son, S. C.
Palmer Products, Inc.
Sonneborn Sons, Inc., L.
Vestal Chemical Co.

FLOOR SCRUBBING EQUIPMENT
Finnell System, Inc.
Hillyard Chemical Company
Huntington Laboratories
Lincoln-Schlueter Floor Machinery Co.
Vestal Chemical Company

FLOOR TILES
Congoleum-Nairn, Inc.
Norton Company

FLOOR TREATMENTS
Eagle Soap Corporation

FLOOR TREATMENTS & COMPOUNDS
Continental Car-Na-Var Corp.
Finnell System, Inc.
Hillyard Chemical Co.
Huntington Laboratories
Johnson & Son, S. C.
Sonneborn Sons, L.
Vestal Chemical Co.

FLOOR WAX
Continental Car-Na-Var Corp.
Finnell System, Inc.
Hillyard Chemical Company
Huntington Laboratories
Johnson & Son, S. C.
Vestal Chemical Company

FLOORING
Carter Bloxonend Flooring Co.
Congoleum-Nairn, Inc.
Southern Oak Flooring Industries
Union Products Co., The

FLOORING—COMPOSITION
Congoleum-Nairn, Inc.

FLUSH VALVES
Crane Co.
Sloan Valve Company

FOLDING CHAIRS
Clarin Mfg. Company
Fort Massac Chair Co., The
Heywood-Wakefield Company
Maple City Stamping Company
Peabody Seating Co.
Rastetter & Sons Co., Louis
Royal Metal Mfg. Co.
Welch Mfg. Co., W. M.

FOLDING PARTITIONS
Horn Folding Partition Co.
Richards-Wilcox Mfg. Co.
Wilson Corp., Jas. G.

FURNITURE
American Seating Co.
Beckley-Cardy Company
Columbia School Supply Company
Heywood-Wakefield Co.
Imperial Desk Company
Kewaunee Mfg. Company
Kimball Company, W. W.
Kundtz Co., The Theo.
Maple City Stamping Company
National School Equipment Co.
Peabody Seating Co.
Remington Rand, Inc.
Royal Metal Mfg. Co.
Sheldon & Company, E. H.
Sjöström Co., Inc., John E.
Steel Furniture Co.
Welch Mfg. Co., W. M.

GLASS
Libbey-Owens-Ford Glass Co.
Manufacturers Glass Company

GLOBES
Beckley-Cardy Company
Nystrom & Co., A. J.
Weber Costello Company

GRANDSTANDS
Wayne Iron Works

GYMNASIUM APPARATUS
Chicago Gymnasium Equipment Co.
Medart Mfg. Company, Fred
Narragansett Machine Company

GYMNASIUM FLOORING
Carter Bloxonend Flooring Co.
Southern Oak Flooring Industries

GYMNASIUM LOCKERS
Medart Mfg. Company, Fred.
Narragansett Machine Company

GYMNASIUMS
Asbestos Buildings Company

HAIR DRIERS
Chicago Hardware Foundry Co.
(Sani-Dri Division)

HEATING SYSTEMS
American Blower Company
Buckeye Blower Co.
Crane Company
Nelson Corp., The Herman
Spencer Heater Company

HUMIDITY CONTROL
Johnson Service Co.
Powers Regulator Company

INKS
American Crayon Company
Sanford Mfg. Co.

INKWELLS
Sengbusch Self-Closing Inkstand Co
Squires Inkwell Company
Tannewitz Works, The
U. S. Inkwell Company

INSULATION
Armstrong Cork & Insulation Co.
Celotex Company, The
Johns-Manville Corp.

JANITORS' SUPPLIES
Continental Car-Na-Var Corp.
Eagle Soap Corporation
Finnell System, Inc.
Hillyard Chemical Company
Huntington Laboratories
Oakite Products, Inc.
Sonneborn Sons, L.
Vestal Chemical Company
Welch Mfg. Co., W. M.

KEY CONTROL SYSTEMS
Thayer Tel-Kee Corporation

KITCHEN EQUIPMENT
Blickman, Inc., S.
Standard Gas Equipment Corp.
Westinghouse Electric & Mfg. Co.

LABORATORY APPARATUS
International Business Machines Corp.
Leitz, Inc., E.
Standard Electric Time Company
Welch Mfg. Co., W. M.

LABORATORY FURNITURE
Alberene Stone Company
Columbia School Supply Company
Kewaunee Mfg. Company
Kimball Company, W. W.
Peterson & Co., Leonard
Sheldon & Company, E. H.
Welch Mfg. Co., W. M.

LADDERS
Dayton Safety Ladder Co., The

LANTERN SLIDES
Welch Mfg. Co., W. M.

LIBRARY FURNITURE
Kewaunee Mfg. Company
Kimball Company, W. W.
Peterson & Company, Leonard
Remington Rand, Inc.
Sheldon & Company, E. H.
Welch Mfg. Co., W. M.

LIGHTING EQUIPMENT
Holophane Company, Inc.
Westinghouse Electric & Mfg. Co.

LINOLEUM
Congoleum-Nairn, Inc.
Sloane Co., W. & J.

LIQUID FLOOR HARDENER
Sonneborn Sons, L.

LIQUID SOAP
Continental Car-Na-Var Corp.
Eagle Soap Corporation
Hillyard Chemical Company
Huntington Laboratories
Vestal Chemical Co.

LOCKERS—STEEL
Medart Mfg. Company, Fred
Narragansett Machine Company

LOCKS—KEYLESS
Corbin Cabinet Lock Company
Dudley Lock Corporation, The
Kewaunee Mfg. Company
Miller Keyless Lock Co., J. B.
National Lock Co., The

MAPS
Beckley-Cardy Company
Nystrom & Co., A. J.
Weber Costello Company
Welch Mfg. Co., W. M.

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Directory of Equipment and Supplies

(Continued from Page 106)

MEMORIAL TABLETS
Russell & Sons Co., Albert

METAL BLACKBOARD TRIM
Dudfield Manufacturing Company

METAL ROLLERS—WINDOW SHADE
Rice & Co., Chas. W.

METHODS—CLEANING
Oakite Products, Inc.

MICROSCOPES
Bausch & Lomb Optical Co.
Leitz, Inc., E.
Spencer Lens Company
Welch Mfg. Co., W. M.

MIMEOGRAPHS
Dick Co., A. B.

MODELING CLAY
American Crayon Company

MOTION PICTURE MACHINES
Eastman Teaching Films, Inc.
Electrical Research Products, Inc.
Holmes Projector Company
Phototone Equipment Corp. of America
R. C. A. Photophone, Inc.

PAINT SPRAYING EQUIPMENT
DeVilbiss Mfg. Co., The

PAINTS
Sonneborn Sons, L.
U. S. Gutta Percha Paint Co.

PANIC EXIT DEVICES
Potter Manufacturing Corp.
Vonnegut Hardware Company

PAPER
American Crayon Company
Beckley-Cardy Company
Kalamazoo Vegetable Parchment Co.

PASTE
Sanford Mfg. Co.

PENCIL SHARPENERS
Automatic Pencil Sharpener Co.

PENCILS
American Crayon Company

PHYSICS EQUIPMENT
Welch Mfg. Co., W. M.

PIANOS
Kimball Company, W. W.

PLAYGROUND APPARATUS
Chicago Gymnasium Equipment Co.
Hill-Standard Company
Medart Mfg. Company, Fred
Narragansett Machine Company

PLAYGROUND LIGHTING EQUIP.
Giant Manufacturing Company
Hill-Standard Company

PLUMBING FIXTURES
Crane Company
Hoffmann & Billings Mfg. Co.
Rundle-Spence Mfg. Company
Sloan Valve Company
Taylor Company, Halsey W.
Vogel Company, Joseph A.

POINTERS
N. Y. Silicate Book Slate Co.
Weber Costello Company

POLISHING AND WAXING EQUIP.
Finnell System, Inc.
Hillyard Chemical Company
Huntington Laboratories
Johnson & Son, S. C.
Lincoln-Schlueter Floor Machinery Co.
Vestal Chemical Company

PORTABLE BLEACHERS
Wayne Iron Works

PORTABLE SCHOOLHOUSES
American Builders, Inc.
Asbestos Buildings Co.
Harris Brothers Company

PROJECTION APPARATUS
Holmes Projector Company

PROJECTION LANTERNS
Bausch & Lomb Optical Co.
Spencer Lens Co.

PROJECTION MACHINES
Eastman Teaching Films, Inc.
Electrical Research Products, Inc.
Holmes Projector Company
Phototone Equipment Corp. of America
R. C. A. Photophone, Inc.

PUBLIC ADDRESS SYSTEMS
International Business Machines Corp.
Western Electric Co.

PUMPS—Vacuum, Condensation, Centrifugal, Sump
Nash Engineering Co.

RANGES
Standard Gas Equipment Corp.
Westinghouse Electric & Mfg. Co.

RECORD SYSTEMS
Remington Rand, Inc.

REFRIGERATION
General Electric Company

REPRODUCTION SYSTEMS
Western Electric Company

SASH OPERATING DEVICES—STEEL
Detroit Steel Products Co.
Truscon Steel Company

SCIENTIFIC APPARATUS
Bausch & Lomb Optical Co.
Standard Electric Time Company
Welch Mfg. Co., W. M.

SCREENS—PICTURE
Eastman Teaching Films, Inc.

SEWAGE EJECTORS
Nash Engineering Co.

SEWING MACHINES
Singer Sewing Machine Co.

SHADE ADJUSTERS
Eveleth Mfg. Co.

SHOWERS
Crane Co.
Hoffmann & Billings Mfg. Co.
Powers Regulator Company

SIGNS
Russell & Sons Co., Albert

SMOKE SCREENS—METAL DOORS
Butler Manufacturing Co.

SMOKE SCREENS—METAL SASH
Butler Manufacturing Co.

SOAP DISPENSING EQUIPMENT
Huntington Laboratories
Hillyard Chemical Company
Palmer Products, Inc.
Vestal Chemical Co.

SOUND PICTURES
Electrical Research Products, Inc.
Holmes Projector Company
Phototone Equipment Corp. of America
R. C. A. Photophone, Inc.

SOUND SYSTEMS
Electrical Research Products, Inc.

SPRAY PAINTING EQUIPMENT
DeVilbiss Mfg. Co., The

STAFF LINERS
Weber Costello Company

STAGE CURTAINS, EQUIPMENT AND SCENERY
Armstrong Studios
Tiffin Scenic Studios
Twin City Scenic Company
Universal Scenic Studios, Inc.
Volland Scenic Studios
Weiss & Sons, I.

STAIR TREADS
Alberene Stone Company
American Abrasive Metals Co.
Norton Company
Sanymetal Products Company

STATIONERY CABINETS—STEEL
Medart Mfg. Company, Fred

STEEL CHAIRS
Royal Metal Mfg. Company

STEEL STORAGE CABINETS
Medart Mfg. Company, Fred

STOOLS—STEEL ADJUSTABLE
Royal Metal Mfg. Company

TABLES
Kewaunee Mfg. Company
Kimball Company, W. W.
Remington Rand, Inc.
Sheldon & Company, E. H.
Welch Mfg. Co., W. M.

TABLETS—BRONZE
Russell & Sons Co., Albert

TELEPHONE SYSTEMS
Automatic Electric Company
International Business Machines Corp.
Standard Electric Time Company
Western Electric Company

TEMPERATURE REGULATION
Johnson Service Company
Powers Regulator Company

TOILET PAPER AND FIXTURES
A. P. W. Paper Company

TOILET PARTITIONS
Milwaukee Stamping Co.
Sanymetal Products Company

TOILET SEATS
Brunswick-Balke-Collender Co.

TOOL CABINETS
Sheldon & Company, E. H.

TOWELS
A. P. W. Paper Company
Brown Company

TYPEWRITERS
Remington Rand, Inc.

VACUUM CLEANING SYSTEMS
Spencer Turbine Company, The

VACUUM PUMPS
Nash Engineering Company

VARNISHES
American Crayon Co.
Hillyard Chemical Company
Huntington Laboratories
Vestal Chemical Company

VENTILATING SYSTEMS
American Air Filter Co.
Buckeye Blower Company
Nelson Corp., The Herman

VISUAL INSTRUCTION EQUIPMENT
Bausch & Lomb Optical Co.

VOCATIONAL EQUIPMENT
Christiansen Co., The
Columbia School Supply Co.
Kewaunee Mfg. Company
Kimball Company, W. W.
Richards-Wilcox Mfg. Co.
Sheldon & Company, E. H.
Sjöström Co., Inc., John E.
Welch Mfg. Company, W. M.

WARDROBES
Austral Window Co.
Evans, W. L.
K-M Supply Company
Prose-Maco Mfg. Company
Richards-Wilcox Mfg. Company
Wilson Corp., Jas. G.

WARDROBE CABINETS—STEEL
Medart Mfg. Company, Fred

WASTE PAPER BASKETS
National Vulcanized Fibre Co.

WASTE RECEPTACLES
Solar-Sturges Mfg. Co.

WATER CLOSETS
Crane Co.
Vogel Co., Joseph A.

WATER COLORS
American Crayon Company
Binney & Smith Company
Talens School Products, Inc.

WATER PURIFIERS
Wallace & Tiernan, Inc.

WATERPROOFING
Sonneborn Sons, L.

WEATHERSTRIPS
Athey Company, The

WINDOW FIXTURES
Austral Window Company
Williams Pivot Sash Company

WINDOW GUARDS
Badger Wire & Iron Works

WINDOW SHADE CLOTH
du Pont de Nemours & Co., E. I.

WINDOW SHADE ROLLERS
Rice & Co., Chas. W.

WINDOW SHADES
Athey Company, The
Beckley-Cardy Company
Draper Shade Co., Luther O.
du Pont de Nemours & Co., E. I.
Maxwell & Co., Inc., S. A.

WINDOWS—ADJUSTABLE
Austral Window Company
Detroit Steel Products Company
Kawneer Company, The
Truscon Steel Company
Universal Window Company
Williams Pivot Sash Company

WINDOWS—STEEL
Detroit Steel Products Company
Truscon Steel Company

ADVERTISERS' REFERENCE INDEX

After the Meeting

GETTING AROUND IT

The danger of inflexible rules in schools was recently pointed out in a clever story told by an eastern superintendent. He said:

"When teachers and other school employees are prevented from getting desired results in their proper sphere of action, they will find ways of circumventing the rules which interfere. They will act like the boy who asked the teller in a bank for a withdrawal of 25 cents from his savings account. The teller refused, because the bank made it a rule to allow no transactions in amounts of less than one dollar.

"The boy walked away disappointed, but soon returned with a request to withdraw $1.25. He received the money and promptly redeposited $1.00, which was accepted."

EVIDENCES OF EDUCATION

Collected from Examination Papers

The principal parts of the eye are the pupil, the moat, and the beam.

A cat is a quadruped, the legs, as usual, being at the four corners.

There are two oracles in the heart — the right oracle and the left oracle.

Rabies is what you put round a dog's nose to prevent his biting.

The liver is situated south of the stomach.

What is the outward and visible sign or form in baptism? — The baby.

A monastery is a place where they make money.

Six days shalt thou labor and do no work.

A ghost is an invisible object which can only be seen at night and not in daytime.

A meridian is the largest telescope in an observatory.

Terra firma is stuff squeezed out of little insects.

Psyche was a black boxer who fought Carpentier.

Doctors now treat patients with ultra-violent rays.

TWO WARNINGS

Mr. Carl M. Bair, superintendent of schools, at Berlin, New Hampshire, tells a joke about a "flunking" college student, which applies to many school situations. He writes:

"A young man had been sent away to college at considerable sacrifice to the family. The stern old father had warned him that it was up to him to make good. At the end of the first term he failed, and was dropped from college. He dreaded breaking the news to father, so decided to telegraph his brother as follows. "Failed and dropped from College. Home tomorrow. Prepare father."

The next morning he received the following: "Father prepared, prepare yourself."

For the Speechmaker

Certain amounts of prosperity are dangerous. A New England superintendent recently pointed this out in repeating an old story:

A boy was asked by an aunt to help find a bit of jewelry which she had lost. As an inducement she offered her nephew a "whole dollar" as reward.

"Aw, Aunt Emma," said the boy. "Make it a quarter. Mother will take a dollar away and put it in my bank. She'll let me spend a quarter."

Mary's Little Lamb

Wife (reading): It says here they have found a long-legged sheep in the Himalaya Mountains that can run 40 miles an hour.

Her Hubby: Well, it would take a lamb like that to follow Mary nowadays.—*Exchange.*

ISN'T IT QUEER?

Isn't it queer that a boy in school,
Under the teacher's erstwhile rule,
Will dream of the time when he shall be
From all restraint and guidance free?
For he thinks that life will be all joy
When he outgrows the name of "boy."

And isn't it queerer still to see
How discontented a man can be?
Hurried and worried and full of care,
With business here and business there,
Till he feels he would give his wealth galore
Just to be a boy in school once more.

—Rose Toothaker Milliken

Buyers' News

TRADE NEWS

Floor School Students Receive Certificates. Certificates designating the holders as "junior floor consultants" have been conferred on twenty men by the "Continental Car-Na-Var College of Engineering" following a program of intensive training in the plant of the Continental Car-Na-Var Corporation, manufacturers of floor finishes and janitorial supplies at Brazil, Ind.

The Continental Corporation's plan is unique in the field of merchandizing service. A vast classroom has been arranged, with thirteen different types of flooring. In this room, three sessions are held daily in floor engineering and maintenance, as well as salesmanship. A carefully developed course of study is followed, under the direction of Mr. James H. Longshore and Mr. J. T. Casey. The work of constructing a floor is performed before the students, and they are given information concerning the physical and chemical characteristics of the various materials, their care and cleaning.

NEW TRADE LITERATURE

The B. F. Sturtevant Company, of Hyde Park, Boston, Mass., has just issued its new catalog, describing and illustrating the new Design 4 Silentvane Fan.

The catalog, which is known as Bulletin No. 381, outlines the important principles of the construction of an efficient fan, and lists the advantages of the Silentvane Fan in the way of motor speed, high efficiency, economy in operation, and savings in first cost of motor equipment. The sharply rising pressure characteristic of the fan automatically takes care of system pressure changes with a small variation in the volume of air handled.

Cellized Wood-Block Floors for Schools. The Cellized Oak Flooring Company, Memphis, Tenn., has just issued an illustrated circular, describing its cellized wood-block floors for schools.

Cellized wood-block floors have all the advantages of wood, together with many educational advantages over the regular wood-strip flooring. Cellized floors do not squeak, have less fire hazard, are more sanitary, are not damaged by insects, cost less for upkeep, and are more durable in general use. Cellized wood floors represent permanent floor service, satisfaction in use, low maintenance costs, and permit of beautiful pattern effects.

Cellized wood blocks are obtainable in oak, maple, beech, and other hard woods, in a variety of sizes and shapes. Complete information and prices may be obtained by any school official, or architect, upon request.

NEW TRADE PRODUCTS

New Peabody Service Desk. The Peabody Seating Company, of North Manchester, Ind., in line with its present successful policy, has produced another new type of furniture for schoolroom use.

The new unit desk and chair No. 260 has been evolved as an addition to the Peabody line of posture seating and is the latest word in schoolroom seating.

THE NEW PEABODY SERVICE DESK

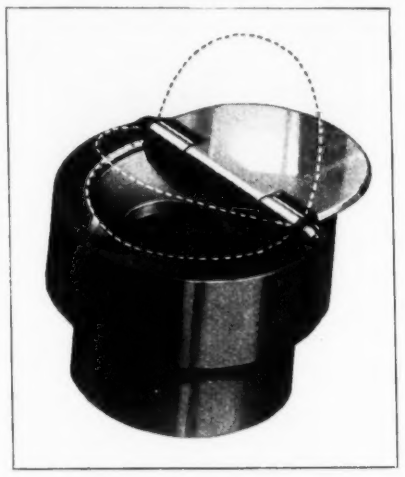
The No. 260 is equipped with a ball-bearing swivel seat, a positive adjustment for seat and desk height, a lifting lid that will not slam, and special broad, flat feet that will not mar the finest floor.

Bruce Floor Finish for Schools. The Bruce Chemical Corporation, of Memphis, Tenn., has issued a neat descriptive circular, describing the Bruce floor finish, an ideal, economical floor finish for schools.

Bruce floor finish has very penetrating qualities, which tends to harden the surface and eliminates refinishing. The finish and the wood wear together, so that it will not scratch or chip. Its simplicity of application and its ease of maintenance make Bruce floor finish desirable for schoolroom floors. Spots which are worn or soiled by heavy traffic may be easily and inexpensively renewed in part with ordinary labor without showing laps.

Announce New Sengbusch Inkwell No. 49. The Sengbusch Self-Closing Inkstand Company, of Milwaukee, Wis., has announced a new, one-piece school inkwell of hard, vulcanized rubber and brass.

The No. 49 inkwell is made in one piece, with the detachable glass-bottle feature eliminated to prevent frequent breakage. The metal-hinged top opens all the way back, which makes it impossible for pupils to flop it back and forth in an effort to imitate a wireless operator. Hard, vulcanized rubber and brass have been substituted to offset the effect of acid in the ink,



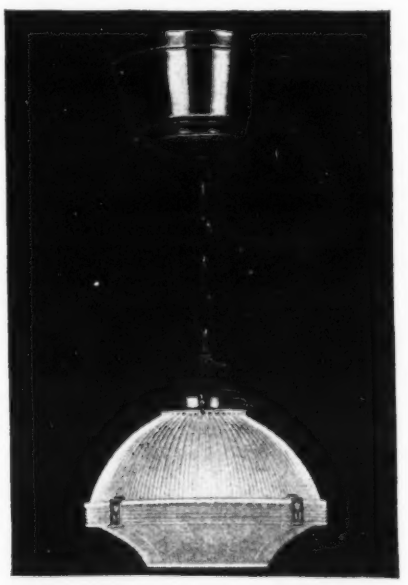
NEW SENGBUSCH INKWELL NO. 49

and to permit the use of a better grade of ink. The No. 49 inkwell is easily installed without tools, it will hold a large quantity of ink, and can be easily filled and cleaned. When closed, the inkwell is practically airtight.

The No. 49 inkwell is made in several models, to fit variations in the size of existing holes in school desks and chairs now in use. Complete information and prices may be obtained by any school official upon request.

New Holophane Ultra-Violet Luminaire. The Holophane Company, Inc., 342 Madison Ave., New York City, has just announced its new Holophane Ultra-Violet Luminaire, to be used in schools with the S–2 Sunshine lamp. This unit is the first of its kind on the market, since it provides artificial illumination from the same source as ultra-violet radiation. It therefore, needs no supplementary Mazda lamps, or any second wiring circuit.

The Holophane Ultra-Violet Luminaire comprises the regular No. 2130 reflector-refractor without the bottom cup, a special inner aluminum oxide finish reflector, and a chain suspension fixture with a 110–115-volt, 60-cycle transformer housed in the canopy. The fixture is simple in construction, easy to install and



HOLOPHANE ULTRA-VIOLET LUMINAIRE

maintain, and reasonably priced. It is suitable for use in school classrooms for retarded pupils, in swimming pools, offices, and wherever indoor sports or sunrooms are in use.

PERSONAL NEWS

Death of Mr. Knight. Mr. Daniel R. Knight, president of the J. L. Hammett Company, Cambridge, Mass., died on October 22. Mr. Knight, who was widely and favorably known throughout New England for his interest in education, was a strong factor in making the J. L. Hammett Company the largest distributor of school equipment and supplies in the eastern states.

In cleaning floors

as in churning butter

- - there's a

BETTER WAY!

Just as the old fashioned churn is giving way to the modern creamery . . . just as the little red schoolhouse is giving way to modern fireproof structures . . . so hand cleaning and polishing of floors is giving place to the Finnell System.

It is not just a case of saving labor . . . of reducing costs . . . but of getting better results. In modern education no expense is spared to keep teaching methods up to date. Buildings are designed for abundance of light, and pure, fresh air. Maintenance should be planned to keep floors clean and sanitary.

Finnell machines, when scrubbing, rout out the dirt with the untiring power of electricity . . . get floors incomparably cleaner than hand methods. The machine illustrated is the Finnell No. 90 — a combination machine that scrubs and picks up the water in one operation. Critics said it couldn't be done . . . till Finnell did it. This machine has met the test of two year's use under every condition — is a proved success in scores of institutions. It *scrubs* at less than the cost of mopping. This is one of the machines included in the Finnell System installed in the new Copernicus High School at Hamtramck, Michigan, a building embodying the latest in design and equipment.

There are eight other models of the Finnell . . . permitting twenty different combinations . . . one of which will precisely meet both your needs and your budget. Finnell is the one system giving you so wide a range.

Investigate now. A Finnell representative will be glad to make a survey of your floors, recommend the system best suited to their proper maintenance, and if you wish, demonstrate it on your floors. Address FINNELL SYSTEM, INC., 811 East Street, Elkhart, Indiana.

FINNELL

Est. 1906

ELECTRIC FLOOR SCRUBBER-POLISHER

It Waxes It Polishes It Scrubs It Finishes

SOLAR BRITE

for safe and sure floor cleaning

SOLAR-BRITE is scientifically compounded from rich, undecomposed vegetable fats. It contains no alkali or other strong ingredients but depends upon the emulsification of the dirt by the smooth cleansing action of the soap itself.

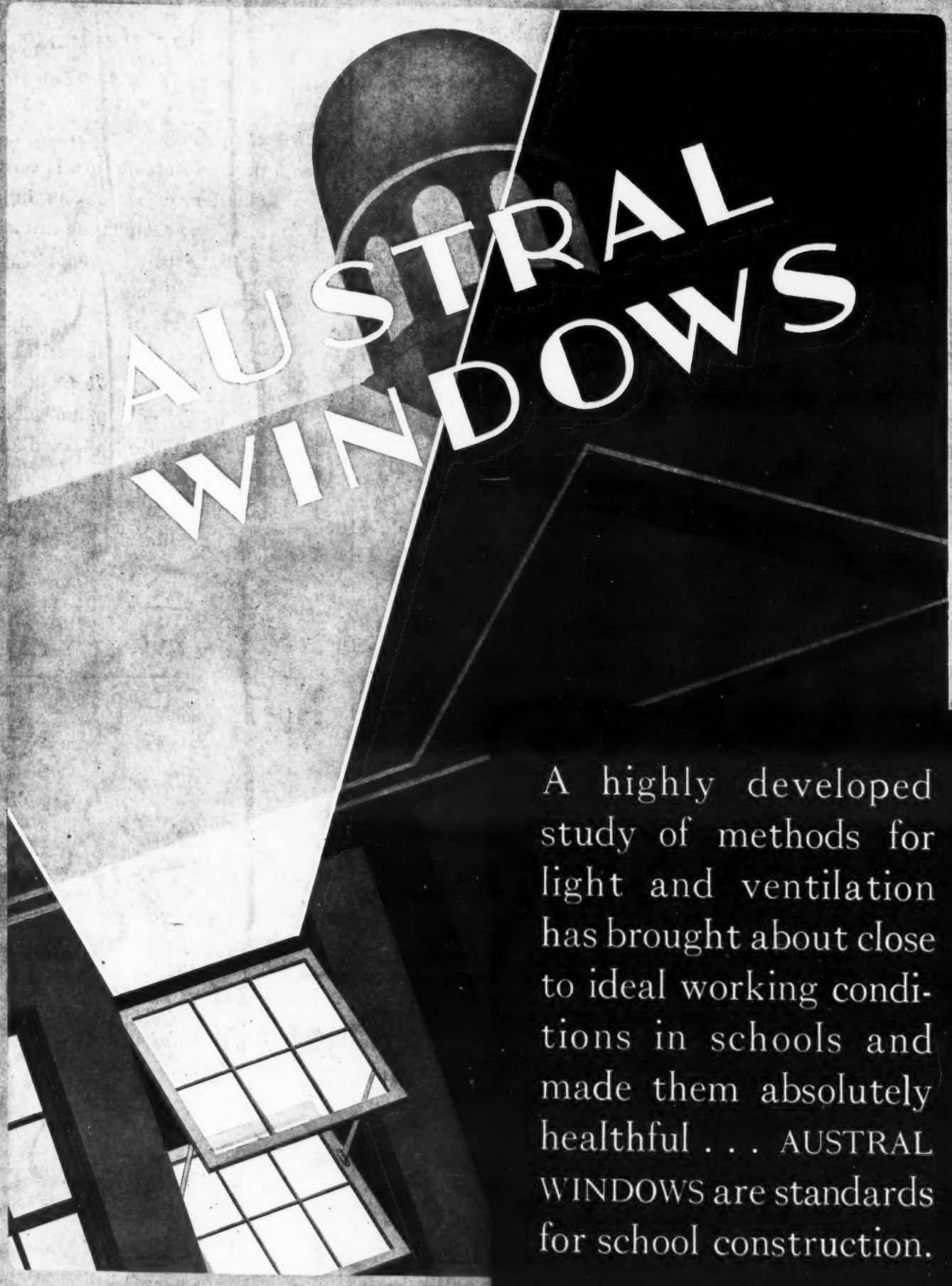
Floors may be easily and quickly mopped clean with SOLAR-BRITE. It will not injure asphalt tile, mastic, wood, linoleum, marble, cement, terrazzo, tile, even waxed floors and floor coverings. For machine scrubbing it is unexcelled. Shipped in 5 and 10 gallon drums.

FINNELL-KOTE

waxes and polishes in one operation

FINNELL-KOTE is the modern way to wax-polish floors. It is a specially prepared wax of high solid-content. The FINNELL-KOTE dispenser attached to any Finnell polisher melts the Finnell-Kote and flows it onto the floor in a thread-like stream. There it is immediately distributed by the brushes . . . a moment later it is brought to a durable, lustrous polish.

You can mop a Finnell-Koted floor several times without removing the gleaming protective finish. This is just one of the characteristic advantages of FINNELL-KOTE.



A highly developed study of methods for light and ventilation has brought about close to ideal working conditions in schools and made them absolutely healthful . . . AUSTRAL WINDOWS are standards for school construction.

AUSTRAL WINDOW CO.

101 PARK AVENUE NEW YORK CITY